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After a successful campaign launching held at last summer's All School Reunion, the School of Mines' *Building the Dream* campaign has continued to thrive throughout the first part of the fiscal year. As of February 28, 2011, over \$39.4 million has been raised toward the \$50 million goal, and over 600 individuals, groups, or corporations have been recognized as national leaders by committing \$5,000 or more during the campaign timeframe.



The *Building the Dream* campaign, the School of Mines' second capital campaign, was publicly announced during the reunion last summer, but began silently in FY 05 with an internal audit and prioritized campus needs assessment. A feasibility study which included hosting meetings in more than 15 states with nearly 600 alumni and friends in attendance was also completed.

All of these efforts identified areas of need which alumni were willing to support along with a \$50 million campaign goal. The \$50 million consists of four areas of support: \$20 million for scholarships, \$10 million for faculty support, \$15 million for the student experience, and \$5 million for capital improvements.

"The common misconception is that tuition, fees, and state appropriations cover the costs of operating this university," said Brad Johnson, vice president of development, SDSM&T Foundation. "Many of the experiences that students, faculty, and administrators have in the course of an academic year are only possible through the generosity of our alumni."

Within the larger \$50 million goal of the *Building the Dream* campaign, the Hardrock Club has also launched a \$12 million *Rocker-Up Destination DII* campaign. This campaign will focus on providing additional support for the athletic program in correlation to its upcoming transition from NAIA to NCAA-DII. The Hardrock Club, along with the School of Mines Foundation, is focusing efforts to provide additional dollars for athletic scholarships to deserving student-athletes through the Named Athletic Scholarship Program, which is part of the *Rocker-Up Destination DII* campaign.

High academic achievement has always been a priority for the Hardrockers who have earned the Dakota Athletic Conference Scholar Athlete award for the past six consecutive years. This past fall, School of Mines' student-athletes carried an overall 3.063 grade point average for the fall semester, higher than the 2.867 grade point average for the overall student body.

The goal of the newly created Named Athletic Scholarship Program is to create 150 awards of \$1,000 each which will provide annual scholarship support to School of Mines' varsity student-athletes.

"It is important the Hardrockers continually ramp-up our efforts to seek the very best academically and athletically talented D-II players, not only within the region, but also from selective metropolitan areas throughout the nation," stated Dick Kaiser, athletic director at the School of Mines.

"Obviously this means the national competition to get these top notch student-athletes is becoming very competitive. As we continually expand our recruiting boundaries, the need to offer competitive athletic scholarship opportunities becomes increasingly more and more important in our

efforts to get the very best," Kaiser added.

Under the Named Athletic Scholarship Program, donors, including former Hardrockers athletes and friends of Hardrockers athletics, can establish scholarships in their own name, or they may choose to fund a scholarship that is named in honor of a senior varsity athlete or a recent varsity athlete graduate. Those contributing may also choose the sport to which they would like to direct their scholarship.

The project coordinators for the Named Athletic Scholarship Program, Tom Rudebusch from the Hardrock Club and Larry Simonson and Judd Nielsen from the SDSM&T Foundation, are hopeful that donors will pledge to fund their scholarships for a minimum of five years (for a total of \$5,000), giving them the additional distinction of being national leaders within both the *Rocker-Up Destination DII* and the *Building the Dream* campaigns.

"The program is really catching on, and there are currently 39 named athletic scholarships in place," said Simonson. "I am beginning to think that our goal of 150 is a bit too modest."

"The start of the campaign has been extremely encouraging," added Kaiser. "This athletic scholarship campaign is absolutely critical to the eventual success of our move to NCAA D-II."

Simonson stated that the goal of the Named Athletic Scholarship Program is to entice recent graduates to contribute, but he fully realizes that some young alumni who are just beginning their careers may not feel comfortable with a \$1,000 annual contribution. In these cases, another fund, the Athletic Scholarship Matching Fund, has been specifically put in place to help fund named scholarships from younger alums.

"We are asking younger alums to contribute \$500 of the \$1,000 scholarship. This \$500 may be a contribution from them, their parents, grandparents, or special followers," said Simonson. "The remaining \$500 will come from the Athletic Scholarship Matching Fund, a fund established by other alumni and friends who are interested in seeing this program succeed."

Once alumni or friends state that they wish to create a named scholarship, a Letter of Intent (LOI) will be drafted to state the donor's intent, and contributions can be made via cash, stock, credit card, or automatic monthly transfer from a checking or savings account. In many cases, corporate matching gift programs are also available to enhance gifts.

Information about several alumni and friends who have established named athletic scholarships is contained in the following pages of this *Foundation Update*. For more information about establishing your own named athletic scholarship or contributing to the Athletic Scholarship Matching Fund, contact:

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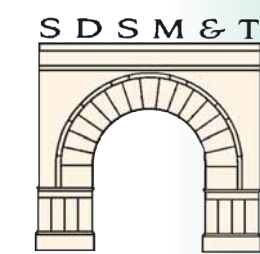
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Pappel to Step Down as President of SDSM&T Foundation



Rod Pappel

After a 20-year tenure as president of the SDSM&T Foundation, Rod Pappel (ME 77) has announced his plans to step down effective June 30, 2011. Through his two decades at the helm of the SDSM&T Foundation, Pappel has led efforts to raise more than \$84 million in private donations to support the institution. His leadership has benefited every aspect of the university including scholarships, faculty support, department support, athletic programs, the renovation and construction of campus buildings, and the expansion of the campus boundaries. Under his direction, annual contributions and Foundation assets have also grown well over tenfold.

The current nationwide search to replace Pappel is open to all qualified individuals and is not restricted to alumni. Details regarding the position can be found at <http://foundation.sdsmt.edu> or <http://agbsearch.com/current-searches>.

Pappel recently took some time to talk about his memories and experiences during his years at the School of Mines.

What changes have you seen in the Foundation in the past 20 years?

The Foundation Board of Trustees made a major leap of faith 20 years ago when they decided to hire a full-time person with the expectation of traveling to meet our alumni. Budgets were tight, but they had the foresight to make the commitment to spend a little money in hopes of securing much needed support for the school. From that humble start, the Foundation has made major strides in all areas to better serve our donors, our students, and our faculty. It is important to note that the growth realized could only have occurred due to the quality of the staff and the commitment of our alumni and friends.

What are some of the areas of expertise within the Foundation?

Over the past twenty years, we have developed one of the best planned giving offices anywhere. Our in-house expertise with charitable trusts and gift annuities is unequalled. Through these gifting vehicles, we have been the recipient of a variety of gifting opportunities including houses, apartment complexes, farms, and ranches to name but a few. In addition, even with our relative small staff size, the

Foundation has developed an incredible quality in communications and development efforts as well.

How does your staff deal with an alumni base located at all corners of the globe?

One of the major hurdles we have to overcome is attempting to maintain contact with alumni scattered around the world. Technology certainly has helped, but our development staff still spends considerable time on the road to reach both our alumni and the companies that hire them.

What are the major changes that have occurred on campus?

The biggest changes have been the physical additions and refurbishment of structures. We have seen major changes including the new artificial turf at the stadium and the locker room renovations to the new and renovated dorms as well as the renovation of Surbeck, the renovation of the ME/CE building, the construction of the Classroom Building, the addition to the CBEC Building and the new Paleontology Research Laboratory and Rapid City Economic Development Incubator. All of these capital improvements have enhanced the campus programs.

What changes have you seen in the faculty?

One thing that has and remains a constant at SDSM&T is the quality of our faculty and their commitment to our students. Every alumnus can share a story about that one (or more) faculty member that had a tremendous impact on their life. Whether it was spending the time required to really understand a principle or caring enough to really get to know the student, the legacy of our faculty as a caring, nurturing focal point remains as true today as it was 125 years ago.

How about the changes in campus leadership and the impact they had on campus?

I have had the unique opportunity to be exposed to five different presidents during the total time I have been associated with the college. Dr. Fraser was president when I took college level classes as a high school student. I feel very fortunate to have had the opportunity to meet and get to know Dr. Fraser after returning to the campus. Dr. Fraser (or perhaps we should use his earned title – General Fraser) was a consummate leader. He could provide a wealth of history including the struggles during the terrible Rapid City flood of 1972 and the role of the campus in helping the city.

As an undergraduate student, I had the

opportunity to work with and get to know Dr. Schleusener. As a student, I found him to be incredibly scholarly and always a gentleman. In terms of leadership, you can still see the benefits of many campus operations started under his direction including the resurgence of the Foundation. In 1981 he led the efforts to restructure the Endowment Association into the SDSM&T Foundation, a move that will always benefit the college.

Dr. Gowen served as president for almost two decades. Under his leadership we saw many changes including the development of what he called the High Plains Network, a precursor to the internet. I do not think anyone would question his deep devotion to the college during his years as president and continuing even today.

Dr. Ruch became our 17th president and served five years. Those five years may go down as some of the most productive in the school's history. During his tenure he secured funding for all the current building projects including the new and renovated dorms, the renovation of Surbeck, the addition of the CBEC Building, and the new Paleontology Research Laboratory. We also started the current capital campaign, *Building the Dream*, during his tenure.

The current president, Dr. Wharton, is nearing completion of his third year. Early achievements include the successful implementation of a focused priority on recruitment and retention, both of which have made major improvements. Much like Dr. Fraser, he has made campus beautification a priority which brings to memory a rather famous Dr. Fraser quote, "I like my campus clean, green, and serene!"

Any final thoughts about leaving?

One could get a bit melancholy thinking about all of the friendships and special relationships built up over the years when leaving, but that has been one the best parts of the job. I feel very fortunate to have had the opportunity to meet and get to know so many of the exceptionally talented School of Mines alumni that have gone on to achieve such incredible accomplishments. But it is not only the alumni, it is the current faculty, the students, and even the knowledge that next year's entering freshman class may well be even more special than this year's recruits! I have shared with many that if you ever had concerns of what the future may bring, come spend some time on our campus. Watching the quality and dedication of our students interact with our faculty will reassure even the most pessimistic that the future holds great promise.

Nielsen Joins Foundation



Jennifer, Alli, and Judd Nielsen all sport their Hardrock apparel.

The SDSM&T Foundation is pleased to announce that Judd Nielsen (IE 95) has joined the staff as a development officer.

Nielsen is a 1995 industrial engineering graduate of the School of Mines. As a student, he was a member of the Hardrocker Football Team and Delta Sigma Phi Fraternity.

After graduation, Judd moved to Minneapolis to work for Accenture. During his 14-year career there, he specialized in managing projects related to the implementation of ERP software packages for state, local, and higher education clients. He left Accenture as a partner in January of 2010 to become an independent contractor and spent the last year running a project for Nike in Portland, Oregon.

Although his home base was Minneapolis for the first 12 years and Sioux Falls for the last 3, Judd traveled extensively throughout his career spending multiple years at client sites in Boston, Massachusetts; Hartford, Connecticut; Washington, D.C.; Olympia, Washington; and

Sacramento, California. During those many airplane rides, he began to think about his next career and what was important to him. Having returned for every alumni reunion since graduation, he thought that a career at the School of Mines would be a great way to give back to the school that gave him so much.

When asked why he wanted to work at the Foundation, Judd said, "I want to help people (students, alums, and hiring executives) realize that School of Mines graduates are just as prepared as those at MIT, Notre Dame and Purdue to go out there and be successful. Having competed with those alums on a daily basis throughout my career, I have realized that we are just as prepared, and Mines grads work harder and don't expect to be handed anything in their professional careers."

"This position will allow me to help raise the needed funds that will allow the School of Mines to continue to compete with the better known universities," added Nielsen.

Judd will be relocating from Sioux Falls with his wife, Jennifer, and his newborn daughter, Alli. In his free time, he enjoys staying up late with his daughter, playing softball and golf in the summer, spending time with his wife while hanging out with family and friends, and following the Hardrocker athletic teams.

Spring Career Fair Held on Campus

The Spring 2011 Career Fair, held on February 10, 2011, hosted 58 employers from 18 states and a multitude of students interested in learning more about available full-time positions, internships, and co-op opportunities.

The number of employers participating was significantly higher than last spring, and several first-time attendees, including Avaya, Banner Engineering, Brosz Engineering, Lankota Group, Symcom, and Valero Energy, were also present. Potential employers represented 18 states.

The School of Mines is known for its high placement rates of graduates, and graduates from 2009-2010 are no different. More than 94 percent of last year's graduates have found jobs in their career fields or in graduate or professional programs, and they are working in 30 states for more than 100 different employers including Fortune 500 companies, regional employers, and local businesses

as well as state and federal government agencies.

The average overall salary offer for last year's graduates who entered the workforce was over \$56,600. Graduates of the Department of Chemical and Biological Engineering and Department of Mining Engineering and Management top the list with average starting salary offers of \$67,400 and \$63,867 respectively. A list of salary averages by major for 2009-2010 graduates is available at <http://careers.sdsmt.edu/students/salary/>

"Employers seek graduates who are academically proficient and who are conscientiously developing overall professional skills," said Pat Mahon, vice president of Student Affairs. "The quality of the Mines' graduates and the strong job placement at reputable organizations and high starting salaries is a win for students and employers."

"Our graduates' starting salaries are a great return on their investment," Mahon concluded.

S D S M & T



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The SDSM&T Foundation is a non-profit corporation operating under the 501(c)(3) designation assigned by the Internal Revenue Service.

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The Foundation Update shall be used as a forum to advise alumni and friends of important events occurring on campus and within the Foundation.

I extend thanks to the individuals who have contributed news reports to the Foundation Update and to the Rapid City Journal, our publisher.

Sandy Carlson, Editor

Spring Phone-a-thon Student Callers

Eleven students made nearly 4,000 phone calls over eight nights of calling, and the School of Mines Foundation processed over 400 pledge cards or requests for information during its spring phone-a-thon held from January 30 – February 10, 2011. Pledges and contributions totaled \$58,785.

Held semi-annually, the phone-a-thon is the most effective way the Foundation has

found to reach a large number of alumni in a short period of time. Over \$1.6 million has been contributed by way of the phone-a-thon since fall 1998. Many alumni choose to give unrestricted dollars which are allocated to the area of greatest need on campus. Others choose to direct their funds toward a particular group, department, endowment, or need on campus.

The SDSM&T Foundation offers our sincerest thanks for the continued generous support of alumni and friends who have participated in the phone-a-thon or have otherwise made gifts to the Foundation.

Students participating in the spring 2011 phone-a-thon included:



Emilee Basta is a sophomore mechanical engineering major from Glendive, Montana. When she is not busy studying, she is active in Phi Eta Sigma and is also part of the SAE Mini Baja Team where she is the student president of the School of Mines Chapter of SAE. In addition, she is active in intramural sports on campus. She chose to come to the School of Mines because of the CAMP teams and also because she views the university as a “top-rated school.” Emilee joined us for this, her second phone-a-thon, in order to reach out to alumni. She added that she needed a few extra dollars, and it is convenient to be able to find a temporary, part-time job on campus.



Tom Cox is an industrial engineering and engineering management junior from Hillsboro, New Hampshire. He worked on his fifth phone-a-thon because he has experience making calls in a call center, because he had some extra time, and because he likes the free pizza. After having lived in several states including California, Arizona, Tennessee, Georgia, New Hampshire, and Massachusetts, Tom decided to study at the School of Mines because he feels “it’s an affordable college with excellent engineering programs.” In addition to staying busy with his classes and studying, Tom teaches and plays tennis and added that he can fold origami and quickly draw in Google Sketchup.



Josh Green joined us for his ninth and last phone-a-thon. This senior mechanical engineering student from Peoria, Illinois, will graduate in May 2011. Josh’s dad, Jim Green (ME 73), helped Josh decide that the School of Mines is the place for him, and Josh agrees saying the School of Mines is in his blood. When he is not busy studying and having fun, Josh is also active on campus where he is a member of Baja SAE and several intramural sports teams including volleyball, water polo, basketball, and dodge ball. He also enjoys playing guitar, competing in off-road triathlons, and skydiving.



Melissa Heron is a junior transfer student from Lake Powell, Arizona, who is studying geological engineering. She came to the School of Mines at the recommendation of one of her teachers, Donna Benson, whose husband, Dwayne Benson (ME 83), is an alum. Since she’s been on campus, she’s become involved in the Tech Geological Association, AISES, and the Rock Climbing Club. She worked on this, her second phone-a-thon, in order to make a few extra dollars. Melissa says she has enjoyed getting to talk to all of the very nice alumni of the School of Mines.



Ryan “Rhino” MacDougall is a sophomore geological engineering student from Wilmington, North Carolina, who came to the School of Mines because he could not find any schools on the East Coast that offered degrees in geological engineering. Ryan recently turned 30, and he participated in his first-ever phone-a-thon in order to support the School of Mines while earning some extra money at the same time.



Mark Mayfield is a geology sophomore from Knoxville, Kentucky. He chose to come all the way to the South Dakota School of Mines and Technology for the great geology program. Mark worked on his

first phone-a-thon because he wanted to support the School of Mines while making a few extra dollars. When Mark is not busy studying, he enjoys climbing and is a member of the campus Rock Climbing Club as well as Tech Geological Association.



Conlan Nelson is a six-time phone-a-thon caller and a senior mining engineering major from Denver, Colorado, who will graduate in December 2011. Conlan’s mom, Jill Nelson (MinE 82), and dad, Mark Nelson (ChemE 83), are both graduates of the School of Mines who helped him decide that the campus was the right place for him to pursue his engineering studies. When Conlan is not busy studying, he works part-time at the Deep Underground Science and Engineering Lab (DUSEL). Conlan enjoys flying and is active in the Hardrocker Flying Club, SME, and ISEE.



Samantha “Sam” Scherlin is a junior geological engineering student from Casper, Wyoming. She came to the School of Mines because her father studied here for two years before switching fields. She also likes the atmosphere of the campus and its proximity to the Black Hills. On campus, Samantha is involved in the Rock Climbing Club, Tech Geological Association, and Intervarsity Christian Fellowship. She worked on her first-ever phone-a-thon in order to help the School of Mines and make some extra money

at the same time.



Kathleen Schwabe is a first-year graduate student studying geology (ore deposits) who received her undergraduate geology degree in 2010 from the School of Mines. Kathleen hails from Merrimack, New Hampshire, and came to the School of Mines because of the geology program and because of the close proximity to the Badlands and Black Hills. She is active in the Society of Economic Geologists (SEG). This past summer, Kathleen worked in Alaska doing geology-related work. Kathleen worked on this, her ninth phone-a-thon, because she enjoys talking to alumni and it’s fun working with her friends.



Grace Sumption is a sophomore geology major from Aberdeen, South Dakota. She transferred to the School of Mines because it was the “only place in-state that offered a geology major and a good place to study geology.” When she is not busy studying, she is also involved in the Hot Rockers Dance Team, the School of Mines Cheer Squad, Alpha Delta Pi, Tech Geological Association, American Indian Science & Engineering Society (AISES), and the Rock Climbing Club. She worked on this, her second phone-a-thon, to make some extra money.



Tyler Vogel is a sophomore industrial engineering and engineering management student from Rapid City. When he is not busy studying, he finds time for a variety of extra-curricular activities including being a member of the M-Week Committee, Ski and Snowboard Club, Triangle Fraternity, and Student Senate. He also says he is “pretty good” at foosball, and he skis better going backwards than forwards. Tyler participated in his second phone-a-thon because he likes being social and is friends with Josh Green who persuaded him to give it a try.

Students Visit King Tut Treasures



A group of students recently visited the King Tut exhibit at the Denver Art Museum.

In October 2010, Deborah Mitchell, associate professor in the Department of Humanities, organized a group of School of Mines students, faculty, staff, and others to travel to Denver to see a touring exhibit of over 100 items from the tomb of the celebrated King Tutankhamun and other ancient sites. The exhibition, “Tutankhamun: The Golden King and the Great Pharaohs,” was on display at the Denver Art Museum through January 2011.

The display included statues of the kings and queens of ancient Egypt and other artifacts including King Tutankhamun’s bed from the tomb and an intricately carved game that may have been a favorite of the boy king.

“This trip appealed to a variety of individuals ranging from students in my Art History class to a

large group of students involved in Material Advantage, a metallurgical engineering student group,” said Mitchell. “We had an outpouring of interest from students, faculty, and staff and were able to accommodate all of them on this trip.”

The School of Mines Student Association paid for a bus to transport the entire group to and from Denver, and Material Advantage paid for their students’ travel expenses.

Sarah Davis, a senior electrical engineering major from Rapid City, took Art History from Mitchell during the fall 2010 semester and was one of the students who traveled to Denver. “This ancient culture had an obsession with gold and its mythical powers,” she said. “It was very apparent the King surrounded himself in gold, having such oddities as golden finger and toe coverings, golden sandals and massive, heavy golden necklaces.”

Mitchell explained that the exhibit is extraordinary because a great deal of Egyptian jewelry and artwork has been robbed from graves throughout history. “With gold being a finite resource, it’s intriguing for students to realize that the gold ring on their finger could contain molecules that originated from ancient Egypt,” added Mitchell.

“It was a learning experience on many levels,” Davis added.

“Visiting the King Tut exhibit at the Denver Art Museum was fascinating, but the experience is so much bigger than that,” said Mitchell. “Many of our

students have never been out of South Dakota and touring this exhibit exposed them to ancient Egyptian art and history which in turn will give them both a longer view of history and a broader view of the world.”

The group spent the entire day at the museum, and students were able to experience other exhibits and displays throughout the day. Mitchell stated that if she were to organize a similar trip in the future, she would add a day or two to the itinerary in order to expose students to many other aspects of a larger metropolitan area including not only art and history, but also music, culture, and international cuisine that are somewhat limited in South Dakota.

“This was a once-in-a-lifetime opportunity for many of our students, and touring the exhibit gave many of them the opportunity to see the world in a different way,” added Mitchell. “There is a whole world out there to see and explore. Going into the work world with broadened horizons and a larger world view is something we cannot teach students who are sitting in a classroom.”

Mitchell expresses her thanks to everyone who helped with the trip including the SDSM&T Student Association; Pat Mahon (dean of students and vice president, Student Affairs); Mike Keegan (director, Student Activities and Leadership Center); Sandy Fischer (director of business services, Business and Administration); and Debra Zeidler (senior secretary, Interdisciplinary Sciences).

Rotaract Club Formed on Campus



SDSM&T Rotaract officials Dr. Carolyn Fassi, Lucas Haan, and Melanie Jeppesen are pictured with club advisor Darrell Sawyer. Fassi, Haan, and Jeppesen were recently honored by Rotary District 5610 by being selected as Paul Harris Fellows. This award, named in honor of Rotary International's founder, is one of Rotary's most prestigious awards.

Thanks to First Lady Carolyn Fassi, the Rotary District #5610 Rotaract chair, and many others both on campus and in the Rapid City community, the Rotaract Club of Rapid City-SDSM&T is now open for business.

The Rotaract Club of Rapid City-SDSM&T was chartered by Rotary International in May 2010 and is the first Rotaract Club in Rotary District 5610, which includes South Dakota and parts of Minnesota, Iowa, and Nebraska. It is also the first Rotaract Club among the South Dakota Board of Regents institutions. SDSM&T alumna Melanie Jeppesen (IS 09) was instrumental in helping the club obtain recognition as an official student

organization by the SDSM&T Student Senate.

Darrell Sawyer, the club's advisor, stated, "The SDSM&T Rotaract Club provides our students with opportunities for local and international service projects while at the same time allowing them to develop professionally and personally."

As a university-based version of Rotary, Rotaract is an international service club for individuals 18 to 30 years old that currently boasts approximately 193,000 members belonging to 8,383 clubs in 170 countries and geographic regions. Those who belong to clubs around the world show that they are prepared for "Service above Self," and the group from the School of Mines is no different.

Since receiving their charter last spring, the students have had a busy year installing officers, working with the two local Rotary clubs, and selecting their international service project, Kids Against Hunger. The club has also already compiled an impressive record of community service with student members participating in many local projects including work with Storybook Island, United Way Day of Caring, Trick or Treat for Canned Food, Storybook Christmas, and Martin Luther King Day of Service Food Drive.

In addition, club members, led by Lucas Haan (ME Senior, Dell Rapids, SD), club president, served the world community with a week-long spring-break trip to an orphanage in Chile to test the portable sustainable energy water filtration project that they are developing as their senior design project for use in Third World countries and

other areas of extreme poverty around the world.

According to Dr. Carolyn Fassi, "The club has approximately 30 members, and one of its most exciting characteristics is its membership which includes a large percentage of both U.S. and international students."

When international students work alongside students from the United States on community service projects, the international students become better integrated into the local community, and area residents have the opportunity to meet international students from the School of Mines which can contribute to a better understanding between different cultures.

"Rotarians in Rapid City and in the district have wanted to establish a Rotaract Club on the School of Mines campus for a long time and thanks the sponsoring Rushmore Rotary Club as well as the support of the Rapid City Rotary and everyone who was involved on campus, we were able to launch the club here at Mines," said Fassi.

"We are so proud of our Rotaractors and their service in this student organization as we are of all those students involved in the many student organizations on campus cultivating a campus culture of community service," added Fassi.

"The students at School of Mines have an amazing opportunity ahead of them," concluded Jeppesen. "Rotaract's mission is definitely one to get behind, but another benefit is the students have a window directly to the Rotarians in the area - what a wealth of knowledge and experience!"

Students Organize Food Drive

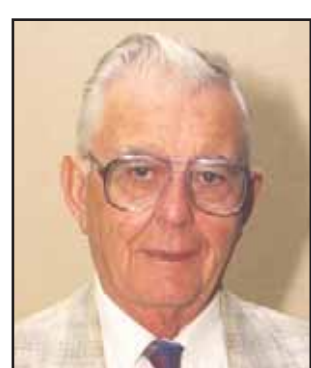
School of Mines students representing various student organizations worked together to organize a food drive during the Martin Luther King, Jr. Day of Service, a day that marked the 25th anniversary of the celebration of Martin Luther King, Jr. Day. The students collected canned-food and boxed-food donations for Feeding South Dakota, a hunger relief organization working to end hunger in the state.

Students successfully collected 818 pounds of food and over \$350 in monetary donations at numerous locations around Rapid City and on campus and hope to make the food drive an annual event.

Student organizations participating included Student Association, CAMP, Campus Ministries, Rotaract, Circle K, Leadership Development Team, and India Club.



Hansen Named Coyle Professor



M.R. Hansen (top) and Bill Coyle (bottom)

M.R. Hansen, professor of civil and environmental engineering, has been selected as the first recipient of the William V. Coyle Professorship. This award reflects Hansen's long-standing contributions to the university and his dedication to educating School of Mines students.

Hansen graduated from Philip High School in 1964, the same high school from which William Coyle graduated in 1936. Hansen, influenced and guided by Coyle, earned his bachelor's and master's degrees in civil engineering from the School of Mines in 1969

and 1973.

Hansen did not turn to academia immediately after graduating, but instead worked as an engineer for nine years, earning his P.E., S.E., and L.S.

licenses. After gaining the invaluable experience and insights of industry (which make him a better teacher today), he went on to teach civil engineering in Wyoming and Oregon before returning to the School of Mines as an associate professor in 1985. Hansen earned his doctoral degree in civil engineering from North Carolina State University in 1993 and became a full professor at the School of Mines in 2001. He has taught nearly 30 courses in civil, construction, mechanical, and structural engineering.

Hansen's current research interests include green concrete (high-volume fly ash, pervious concrete) and the use of recycled glass in concrete, and he has authored more than 70 publications on concrete research, computers, management, and teaching. Hansen has been named a Fellow of the American Concrete Institute and the American Society of Civil Engineers, and he has also been actively involved with the ASCE Student Chapter for many years. In addition, Hansen has been integral in his role as faculty advisor to the Engineers and Scientists Abroad student organization.

The William V. Coyle Professorship honors Coyle, a 1944 civil engineering graduate from the School of Mines. After serving in the Navy, Coyle returned to his alma mater in 1947 as a member of the faculty and served as a professor and department head of civil engineering for 18 years. He took a

leave of absence to complete his master's degree at the University of Missouri in 1951. Bill was instrumental in initiating the School of Mines' participation in the American Society of Civil Engineers concrete canoe competitions, and through his dedication, Bill ensured that School of Mines students competed regionally and nationally. Bill's interests and interaction with his students extended well beyond the classroom, and he was known by his students to be a kind and generous man who was always there to help. Coyle retired from the School of Mines in 1988 after more than 40 years, and he passed away in 2002.

Hansen was aptly selected as the inaugural Coyle Professor because of his experience in civil and environmental engineering, his national and international reputation, his experience in teaching, research, and outreach, his experience in developing and enhancing industry-university partnerships, and his leadership qualities, all traits that William Coyle himself possessed throughout his tenure at the School of Mines.

Alumni or friends who are interested in supporting the Coyle Professorship can send contributions to the SDSM&T Foundation on line at <http://foundation.sdsmt.edu> or through postal mail to SDSM&T Foundation, 501 East Saint Joseph Street, Rapid City, SD 57701. Please indicate "Coyle Professorship" on gifts.

Maudsleys Create Three Scholarships to Assist School of Mines Students

Holly (Hansen) Maudsley (ChemE 95) and her husband, John Maudsley, have recently established three separate non-endowed scholarships to assist School of Mines students.

The first scholarship, the John and Holly (Hansen) Maudsley Athletic Scholarship, will be awarded to any full-time student participating in varsity athletics at the School of Mines.

The second scholarship, the Holly (Hansen) Maudsley Scholarship for Female Engineering Students, was established in hopes of linking the tremendous benefit and network of the Society of Women Engineers (SWE) to the future success of female students. The scholarship will be awarded to full-time female School of Mines engineering students with first preference being given to students who are members or become members of SWE.

The third fund, The Holly (Hansen) Maudsley Best of Both Worlds Scholarship, was established by the Maudsleys to support mothers as they strive for their degrees at the School of Mines. This scholarship will be awarded to any full-time female School of Mines student who is also a mother with first preference being given to students studying engineering. Holly found motherhood to be the greatest joy in life, but she didn't want to give up her engineering profession as so many others had. She realizes that it is difficult to balance the two callings,

but she also acknowledges the tremendous benefit and reward of having mothers working in the STEM (Science, Technology, Engineering, Mathematics) fields.

Holly (Francis) Hansen was born to School of Mines alumnus and professor M.R. (CE 69/MS CE 73) and Barbara Hansen. Holly was named after her uncle, fellow School of Mines alumnus Francis (Frank) Hansen (CE 73). While growing up, Holly knew that she would become an engineer, but it wasn't until meeting her high school chemistry teacher (School of Mines alumna Dr. Roberta Gaines (MS Chem 72/PhD Geol 86)) that Holly knew her field would be chemical engineering. Holly attended the School of Mines and graduated in 1995 earning a bachelor's degree in chemical engineering.

After graduating, Holly went to work for a small start-up ethanol plant, launching her career from her senior design project. She left there after gaining project management skills to join the ranks of 3M in the Electrical Products and Telecom divisions in New Ulm, Minnesota. After making her mark there, Holly shifted to the Pharmaceuticals and Drug Delivery Systems division in Northridge, California, to support the transdermal patch mixing and coating operations.

In Northridge, Holly met her husband, John Maudsley, a native Californian who has been

working for 3M since 1990. John was an avid sportsman growing up and continues to enjoy watching the Steelers play football. Holly and John were married in 2004, and they were blessed with



John and Holly Maudsley

Asher Cullen Maudsley in December 2005. Motherhood proved to be the highest calling for Holly and has brought her tremendous joy over the years.

The most recent life changes came when Holly and John elected to uproot and return to the frozen tundra of St. Paul, Minnesota. Opportunities for career advancement, purchasing a nice house, and great public schools motivated the move. Holly is now a senior product and process development engineer with 3M's Drug Delivery Systems Division, conducting research and development on new transdermal patches. John also transferred with 3M and works in the Tape Pilot Plant in Cottage Grove, Minnesota. Asher will begin kindergarten in the fall of 2011.

Moonrockers Receive SpaceX Support for NASA Competition

After a successful fourth place finish last year amongst 22 teams, the South Dakota School of Mines and Technology Moonrockers team plans to compete again this year in NASA's Second Annual Lunabotics Mining Competition to be held May 23-28, 2011, at Kennedy Space Center, Florida. Along with continued support from NASA and the NASA South Dakota Space Grant Consortium, the team also received support from Space Exploration Technologies (SpaceX) to help the team participate in the competition.

Prior to the competition, student teams design and build remote controlled or autonomous excavators called lunabots. During the competition, the teams use their lunabots to collect and deposit a minimum of 10 kilograms of lunar regolith simulant within 15 minutes and are faced with four main challenges: establishing wireless communications with the vehicle, moving in the regolith simulant (finely crushed volcanic rock intermixed with rocks) and navigating the obstacle course of craters/boulders, excavating regolith and traversing back through the obstacle course, and then finally delivering the regolith to a collection bin.

For the 2011 competition, 60 teams are registered from around the world including 40 teams from the United States and 20 international teams. With nearly tripling in size from last year, the competition will be held at the Kennedy Space Center Visitor Complex instead of the Astronaut



The SDSM&T Moonrockers: Front Row: Tanner Swanson, Josh Stuchl, Erica Howie, and Carly Sandin. Back Row: Zach Hewitt, Luke Zweifel, Jason Ash, Dr. Michael Batchelder, Luke Schaefer, Dr. Jeff McGough, Ryan Housh, John Ziadat, and Jon Lu.

Hall of Fame. The Moonrockers advisors include Jason Ash (instructor, Mechanical Engineering), Dr. Michael Batchelder (professor, Electrical and Computer Engineering), and Dr. Jeff McGough (associate professor, Mathematics and Computer Science) and are pictured with the team.

"The SDSM&T Moonrockers are focused on redesigning the excavation/delivery system and are excited to participate in a NASA competition," Ash said. "The team is extremely grateful for the funding from NASA and the support from SpaceX that enables all available team members to participate in Florida. This provides a great opportunity for students to be engaged in a space-related activity and opens opportunities for

internships and careers in the field."

Alumni or friends who are interested in supporting the Moonrockers can send contributions to the SDSM&T Foundation on line at <http://foundation.sdsmt.edu> or through postal mail to SDSM&T Foundation, 501 East Saint Joseph Street, Rapid City, SD 57701. Please indicate "Moonrockers" on gifts.

About SpaceX: SpaceX develops, manufactures and launches a family of launch vehicles and spacecraft that are increasing the reliability and performance of space transportation, while ultimately reducing costs by a factor of ten. With the Falcon rockets, SpaceX has a diverse manifest of launches to deliver commercial and government satellites to orbit. After the Space Shuttle retires, the Falcon 9 and SpaceX's Dragon spacecraft will start carrying cargo, including live plants and animals, to and from the International Space Station for NASA. Falcon 9 and Dragon were developed to one day carry astronauts.

Founded in 2002 by Elon Musk, SpaceX is a private company owned by management and employees, with minority investments from Founders Fund, Draper Fisher Jurvetson, and Valor Equity Partners. The company has over 1,250 employees in California, Texas and Florida. For more information, and to watch the video of the Falcon 9 and Dragon launches, visit the SpaceX website at SpaceX.com.

SDSM&T Students Study Big Air in Math Modeling Contest



James Haiston, Michael Snyder, and Lara Heiberger

The weekend of February 12, 2011, marked the 27th annual Mathematical Contest in Modeling. In this contest, teams of three undergraduate students are given open-ended complex problems where they are required to research the topic, develop a mathematical model, use a computer to

simulate the model, and write a technical report. The truly amazing part of this contest is that the competitors have only a weekend to complete their work.

One of the contest problems for this year was to design a snowboarding course to maximize vertical air, which is defined as the maximum vertical distance above the top edge of the course. Currently, these courses are known as a half pipe, but the contest encouraged students to dream up other designs that would maximize vertical air. Students also had to consider practical limitations on what could be implemented and what features of their course would be beneficial to the sport of competitive snowboarding.

"The School of Mines has participated in this contest several times over the past ten years, and we are often one of the few schools that compete in

this region of the United States," said Kyle Riley, chair and associate professor, Department of Math and Computer Science. "The open ended nature of the questions allows for considerable creativity, and it promotes the critical thinking skills we try to foster in our students."

The School of Mines students who competed this year are James Haiston (CSc Senior, Rapid City), Michael Snyder (Math Junior, Rapid City), and Lara Heiberger (Math Senior, Rapid City).

The contest is an annual competition that involves thousands of teams from hundreds of schools, colleges, and universities from around the world.

For more information about the contest, visit <http://www.comap.com/undergraduate/contest/s/mcm/>

Youth Programs Office Creating Future Scientists and Engineers

The School of Mines is once again offering a variety of educational opportunities for elementary, middle, and high school students. The goal is to allow students to try their hand at engineering and science by attending a summer residential camp or day class. Here are just some of the great camps being offered:

Socket to Me! Computer Camp: Students explore careers in computer science and engineering while getting a hands-on experience. Participants will learn about computer basics, computer disassembly and reassembly, PC maintenance, basic and web programming, basic electronics, hardware and software.

Space Adventures! Camp: Students will explore the birth of the universe, the life cycle of stars, black holes, relativity, time travel, star mythology and space engineering. Participants will take field trips to the Air & Space Museum and the Hidden Valley Observatory, as well as build and launch their own model rocket!

Science Technology Engineering Preview Summer (STEPS) Camp: Campers will receive an introduction to the world of technology and engineering and will participate in hands-on activities that give them an understanding of what engineers do, as well as science and engineering topics such as materials, clean manufacturing, CAD, robotics and team building.

Mining and Explosives Engineering Camp: Students will learn about the science behind explosives and how engineers apply explosive forces to break rock to unearth precious minerals from the ground. They will explore the world of math, physics, and chemistry through explosives and will be given an up close and personal view of mining and explosives engineering by trained explosives experts.

Super Science Camp: This camp will get kids excited about science! Students will explore physics (impulse and momentum, phases of matter, and building catapults), earth science (geology of the Black Hills, water quality field trip, and meteorology), astronomy (Mars, the Hubble telescope, NASA, comets and meteors), and chemistry (safety and experiments).

Forensics and Materials Engineering Institute: Students will explore the exciting world of forensics engineering and material analysis. They will go on field trips to visit a local metals mine as well as to local industries to learn about material applications in industry. Campers will participate in hands-on laboratory experiments while learning about metals, polymers, composites, nanomaterials, minerals and metals processing, metal working, materials testing and characterization and investigating how materials fail.

Youth Geology Field Camp: Students will be introduced to geology through daily field trips. Campers will learn about minerals, rocks, fossils, topographic and geologic maps, water, landslides, earthquakes, the creation of mountains and landforms and the geology of the Black Hills. Geology Field Camp gives students a chance to experience college life in an outdoor setting. Campers will stay in tents, eat outdoor cooking, and go on field trips to see geologists in action!

Chemical and Biological Engineering Institute: Students will understand what it's like to be a chemical engineer and the types of work they do. Students will learn what chemical and biological engineering is as well as chemical process design, how to convert biomass into products, biofuels, biopharmaceuticals, chocolate processing for consumption, biomedical engineering and biomaterials. This hands-on program will give students experiences to help them make decisions about pursuing chemical and biological engineering in college.

If you know of a young person who might be interested, please let them know about these terrific programs. For more information, please visit www.sdsmt.edu/learn or call Youth Programs at (605) 394-2693.

Help Youth Become Engineers

Since the mid-1980s, engineering enrollments at universities across the nation have declined for several reasons. First, many students struggle with math and science in school, and second, they do not understand what engineers and scientists do.

To break this cycle of declining enrollments, students need a better understanding of engineering and science, and the School of Mines summer youth programs provide just that. Young people come to campus, overcome their fear of college, and participate in hands-on projects to learn what engineers and scientists do. The success of the summer youth programs can be seen in statistics based on past program participants who are now college-aged: 95% are in college, 87% are pursuing a science or engineering degree, and 54% are current School of Mines students.

The School of Mines Youth Programming and Continuing Education (YPCE) office is asking for assistance in providing scholarship money for needy youth to attend summer camps (64% of campers requested scholarship help to get to camp in 2010).

A full scholarship (\$500) or partial scholarship will help a student attend a summer camp and learn about engineering and science programs at the School of Mines. Contributions for youth summer camp scholarships may be made through the SDSM&T Foundation on line (<http://foundation.sdsmt.edu>) or via mail. Please indicate "YPCE scholarships" on gifts.



In this photo, School of Mines President Robert A. Wharton, Ph.D. accepts a contribution from David Poulson, manager for System Software at L-3 Communications-West. Also pictured from left to right are John Heiberger (ME 10), Joshua Job (CSc 09), Dr. Kyle Riley (chair and associate professor, Department of Mathematics and Computer Science), Eric Yao, and CiCi Compton (senior human resources partner, L-3 Communications-West).

L-3 Communications, based in Salt Lake City, employs nearly 30 School of Mines graduates. They also have a vested interest in the university's Robotics and Intelligent Autonomous Systems (RIAS) degree program, an interdisciplinary, research-oriented degree program that covers the essentials of robotics, artificial intelligence, control communications, sensors, and signal processing.

L-3 Communications has made a multi-year funding commitment to the RIAS program to purchase lab equipment and books and to provide student fellowships. They have also provided full-ride scholarships for summer programs for needy families and supported the program with gifts-in-kind.

SDSM&T Foundation Around and About



Cleveland, Ohio: Front Row: Sharon Olson, Joy Guenther, Marvin Egge (Ex 34), Larry Rohl (EE 66), and Marlene Bowman. Back Row: Jim Johnston (ChemE 62), Doug Olson (MetE 60), Al Guenther (CE 60), Jacob Reitenbach (MS Geol 75), Harold Bound (EE 76), and Conrad Bowman (MetE 61).



Brookings, South Dakota (Daktronics): Front Row: Laura (Hennen) Jarvis (ME 90), Jackie Schroeder (ChemE 91), Adam Gilliland (CE 05), Jeremy Morrison (ME 98), Melanie Olsen (IE 07), and Jacob Hewett (EE 03). Back Row: Josh Borns (ME 05), Terry Church (Phys 69), John Mette (EE 89), Shawn Weber (CE 96), Steve Schallenkamp (Phys 87), Steve Lamecker (ME 07), Travis Whitehead (ME 06), and Judd Nielsen (IE 95).



Mitchell, South Dakota (Innovative Systems): Front Row: KJ Berg (CEng 98), Tor Towsland (EE 94), Alan Pretre (CSc 85), Ryan Kroetch (EE 09), Chris Poe (CEng 07), and Shane Warren (CEng 98). Back Row: Rob Denind (CEng 97), Patrick Rich (CSc 03), Wyatt Zochert (CSc 04), Steve Laufman (EE 96), Adam Freese (CEng 07), Rune Torgersen (CEng 98), and Gene Vold (EE 87).



Mitchell, South Dakota: Front Row: Angie and Dave (ME 84) Victor and Rob Baruth (IS 95). Back Row: Stacy Johnson (CE 98), Greg Farke (EE 71), Judd Nielsen (IE 95), and Adam Bruscher (CE 10).



Yankton, South Dakota (Kolberg-Pioneer): Front Row: Hartley Alsgaard (Math 76), Jodi Heirigs (ME 88), Steve Sager (IE 96), Larry Simonson (EE 69), and Joe Vig (CE 71). Back Row: Keith Thomas (EE 87), Chuck Gukeisen (GenE 56), Jim Bauer (HON 03), Dave Bushong (ChemE 80), Wayne Anderson (CE 66), and Dave Carda (ME 91).



Gillette, Wyoming: Alicia and Kelly (ME 08) Hansen, Travis Riedy (CE 04), and Justin Gaspar (EE 10).



Sheridan, Wyoming: Mindy and Mark (MinE 77) Ree, Diane and Lloyd (ME 72) Marsden, and John (MinE 74) and Judy Rueb.



Westminster, Colorado: Front Row: Gary Young (CE 66), Marv Trube (ME 67), Randy Parcel (MinE 67), and Bob Westby (ME 69). Back Row: Judd Nielsen (IE 95), Ron Jeitz (CE 69), Tom Gardner (CE 74), Bill DeGroot (CE 69), Marty Amble (CE 68), and Ron Stember (ME 67).



Westminster, Colorado: Front Row: Judd Nielsen (IE 95), Charlie Parks (EE 57), Ruth Rodrigues, and Leslie Lawson. Back Row: Val Prolow (EE 81), Matt Lyndoe (MetE 07), Fernando Rodrigues (MinE 99), Brian Goetsch (ME 98), Dan Himelspach (Chem 70), and Ron Jeitz (CE 69).



Westminster, Colorado: Front Row: Brad Johnson (EE 92) and Bill Ramthun (CSc 88). Back Row: Kelly Ammann (ME 88), Murray Shattuck (EE 88), Dan Carlson (EE 83), Wade Fott (ME 88), and Michael Coe (EE 87).



Denver, Colorado (Echostar): Front Row: Dave Crandall (CSc 02), Desi Ottmar (CEng 02), Andrew Kraft (CSc 08), Jason Neitzert (CEng 08), and Mashfique Iqbal (MS EE 07). Back Row: Nick Newell (CEng 04), Corbin Latham (CEng 07), Curtis Knox Jr. (EE 03), Greg Goldey (CSc 86), and Jay Carlson (CEng 04).

Engineers Week 2011

The faculty, staff, alumni, and students of the South Dakota School of Mines and Technology joined forces with practicing engineers of the Black Hills Chapter of South Dakota Engineering Society (SDES), the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), scientists, and K-12 teachers to host the 34th annual Engineers Week at the School of Mines from February 20-26, 2011. A variety of activities, panels, workshops, and speakers were scheduled throughout the week.

The traditional favorites were back again this year. The Kids' Block Contest, open to grade school children and sponsored by the National Association of Women in Construction, Black Hills Chapter, asked participants to build engineering projects using interlocking blocks. South Dakota Engineering Society, Black Hills Chapter, sponsored the MathCounts contest for middle school students from West River area schools. MathCounts is celebrating 27 years as one of

the most successful educational partnerships involving volunteers, educators, industry sponsors, and students.

The Order of the Engineer luncheon and induction ceremony was held on Tuesday to kick off the week. The Order of the Engineer fosters a spirit of pride and responsibility in the profession of engineering. Initiates were presented the traditional stainless steel ring and a certificate of membership.

In addition, SDES teamed with the Engineers Week Committee to sponsor an educational forum and luncheon. The year's speaker was Dan Vockrodt, P.E., a foundation engineer with the South Dakota Department of Transportation, who presented a talk entitled "Railroad Multiplate Challenges in Black Hawk, South Dakota."

On Thursday, about 700 local middle high and high school students were on campus to take departmental tours and watch the Chemistry Magic Show under the direction of School of Mines chemistry fac-

ulty, students, and staff.

The finale to the week was the Rube Goldberg Machine Contest. This year's theme asked teams to build a machine that could water a plant in 20 steps or more. Five teams participated, and last year's national winning team from the University of Wisconsin-Stout won first place again. Second place went to a team from Mullen (Nebraska) High School, and third place went to the School of Mines Triangle Fraternity Pledges.

Beth Riley, program assistant in the Office of the President, was the primary organizer for Engineers Week. "This is my third year of this wonderful event and I enjoy it more each year," Riley said.

"Engineers Week provides an excellent opportunity for our students, faculty, and staff to show what exactly engineering and science has to offer the community and future engineers and scientists," concluded Riley.

RPM & Associates, Inc. Receives Gold Boeing Performance Excellence Award

RPM & Associates, Inc. recently announced that it is one of only 141 suppliers to receive a 2010 Gold Boeing Performance Excellence Award. The Boeing Company issues the award annually to recognize suppliers who have achieved superior performance, and this year, Boeing recognized 558 suppliers, 141 at the Gold level and the remainder at the Silver level.

"RPM is very honored and humbled by this recognition," said Robert P. Mudge (MetE 76/MS MetE 78), president of RPM & Associates, Inc. "We work very hard for our customers and are sincerely proud when our efforts are officially recognized. As one of the original founders of RPM, I feel extremely grati-

fied when our team receives such recognition."

RPM & Associates, Inc. supplies Laser Deposition Technology (LDT) products and services to Boeing for the Light Weight Exhaust Systems program. RPM & Associates, Inc. added LDT capabilities in 2004 to better service their existing customer base of coal fired power companies as well as expand into Department of Defense (DoD) and aerospace applications. LDT is used to repair high value components or to free form manufacture new metal parts directly from CAD files. As LDT has matured, DoD and aerospace industry groups have been embracing this innovative metal deposition capability.

RPM & Associates, Inc. was founded in 1982 and is based in Rapid City, South Dakota, where it employs a number of School of Mines graduates. The company focuses on innovative wear solutions for industry by employing creative engineering, automatic welding, and the appropriate selection of materials.

Additional information about the Boeing Performance Excellence Award can be found at http://boeing.com/companyoffices/doingbiz/supplier_portal/bpea.html.

For additional information on RPM & Associates, Inc., visit www.RPMandAssociates.com.

Faculty Awards

S. Phillip Ahrenkiel (Nanoscience and Nanoengineering) received an additional \$15,000 from the U.S. Department of Energy for his project entitled "Lattice-Mismatched III-V Epilayers for High Efficiency Photovoltaics."

Xinhua Bai (Physics) and **Andre Petukov** (Physics) received \$7,200 from the National Science Foundation for their project entitled "2010 Workshop on Major DUSEL Physics Topics, Rapid City, SD October 1-3, 2010."

Sookie Bang (Chemical and Biological Engineering) received \$16,622 from Black Hills State University for her project entitled "Metagenomic Analysis of Drainage and Service Water in the DUSEL at Homestake."

Kenneth Benjamin (Chemical and Biological Engineering) received \$44,645 from the South Dakota Board of Regents for his project entitled "Molecular Investigation of Adsorption During Nickel-Catalyzed Supercritical Water Gasification for Bioenergy and Biofuels."

Karen Braman (Mathematics and Computer Science) received \$110,798 from the National Science Foundation for her project entitled "AF: Small: RUI: Eigenvalue Computation via the QR algorithm: Advanced deflation techniques."

Lew Christopher (Center for Bioprocessing Research and Development) received an additional \$500,000 from the South Dakota Board of Regents for his project entitled "Center for Bioprocessing Research and Development (CBRD)."

Edward Duke (Engineering and Mining Experiment Station) recently received \$250,000 from the National Aeronautics and Space Administration for his project entitled "South Dakota NASA EPSCOR Research Infrastructure Development Program."

Duke also received \$430,000 from the South Dakota Space Grant Consortium-National Aeronautics and Space Administration for his project entitled "Space Grant College and Fellowship Program (Space Grant) 2010-2014."

Duke also received an additional \$30,996 from the National Aeronautics and Space Administration for his project entitled "South Dakota Space Grant Consortium."

John Helsdon (Office of Graduate Education) received an additional \$1,000 from the National Science Foundation for his project entitled "Graduate Research Fellowship Program."

Timothy Henderson (Business Services) received \$1,535,250 from the Bureau of Administration for his project entitled "Governor's Office of Economic Development American Recovery and Reinvestment Act State Energy Plan Grant Agreement."

Bharat Jasthi (Advanced Materials Processing Laboratory) received \$200,000 from Transition45 Technologies for his project entitled "Friction Stir Processing of Cast Superalloys."

Jon Kellar (Materials and Metallurgical Engineering) and **William Cross** (Materials and Metallurgical Engineering) received an additional \$171,600 from the University of South Dakota for their project entitled "IGERT: Nanostructured Solar Cells: Materials, Processes and Devices."

Kellar also received an additional \$671,994 from South Dakota State University for his project entitled "Beyond the 2010 Initiative: Partnership for Competitiveness."

Charles Kliche (Mining Engineering and Management) and **S.N. Shashikanth** (Mining

Engineering and Management) received \$59,313 from the U.S. Department of Labor—Mine Safety and Health Administration for their project entitled "Mine Safety and Health Administration/Mine Health and Safety Training."

Patricia Mahon (Office of Student Affairs) received \$10,000 from the South Dakota Department of Health for her project entitled "H1N1 Flu Vaccination Events."

James Martin (Museum of Geology) received \$25,000 from the U.S. Department of the Army—U.S. Army Corps of Engineers for his project entitled "U.S. Corps of Engineers Survey and Salvage 2010."

Martin also received \$2,500 from the U.S. Department of Interior—Bureau of Land Management for his project entitled "Survey and Salvage Fossil Lake OR 2010."

Dana Medlin (Materials and Metallurgical Engineering) and **Kellar** received \$142,855 from Radiance Technologies for their project entitled "Advanced Electronic Rosebud Integration (AERI) Research and Development Program."

Medlin, Stanley Howard (Materials and Metallurgical Engineering), **Haiping Hong** (Materials and Metallurgical Engineering), and **Andre Petukhov** (Physics) received an additional \$157,650 from the University of South Dakota 2010 Center for their project entitled "2010 Center for Ultra-low Background Experiments."

Petukov also received \$55,468 from the National Aeronautics and Space Administration for his project entitled "Studies of the Stark Effect in Lithium Doped Silicon."

Jan Puszynski (Chemical and Biological Engineering) received \$74,750 from the U.S. Department of Defense-Armament Research, Development & Engineering Center (ARDEC) for his project entitled "Advanced Research for the Formation and Processing of Nanopowders for Energetic Applications."

Lance Roberts (Civil and Environmental Engineering) received an additional \$35,000 from the South Dakota Department of Transportation for his project entitled "Mechanistic-Empirical Pavement Design: Materials Testing of Resilient and Dynamic Modulus."

Marc Robinson (Civil and Environmental Engineering) received \$40,000 from the University of California, San Diego for his project entitled "Composite Joint Assault Bridge."

William Roggenthen (Deep Underground Science and Engineering Laboratory-DUSEL) received additional awards of \$3,905,324 and \$4,611,845 from the University of California—Berkeley for his project entitled "Developing the Preliminary Design for the Deep Underground Science and Engineering Laboratory (DUSEL)."

James Sears (Additive Manufacturing Laboratory (AML)) received an additional \$80,551 from Black Hills Nanosystems Corporation for his project entitled "Safe-and Army Devices for the U.S. Army."

Sally Shelton (Museum of Geology) received \$38,000 from the U.S. Department of Interior—Bureau of Reclamation—Cooperative Ecosystems Studies Unit for her project entitled "Management of Natural History Collections from Reclamation Lands."

James Stone (Civil and Environmental Engineering) received \$20,000 from South Dakota State University for his project entitled "Swine

Facility Life Cycle Assessment Model Development."

Pallaoor Sundareshwar (Institute of Atmospheric Sciences) received an additional \$115,056 from the National Science Foundation for his project entitled "Collaborative Research: Exploration of the Mechanistic Basis and Biogeochemical Implications of Differential Nutrient Limitation Among Trophic Levels."

Nuri Uzunlar (Geology and Geological Engineering) received an additional \$22,914 from the National Science Foundation for his project entitled "Collaborative Research: Coupled Thermal-Hydrological-Mechanical-Chemical-Biological Experimental Facility at DUSEL Homestake."

Michael West (Advanced Materials Processing Center) received an additional \$484,526 from the South Dakota Board of Regents for his project entitled "Repair, Refurbish, and Return to Service—Applied Research Center (R3S-ARC)."

West and **Kellar** also received an additional \$73,500 from the National Science Foundation for their project entitled "REU Site: Back to the Future."

Ronald White (Office of Research Affairs), **David Salem** (Composite and Polymer Engineering Laboratory), **Kari Muci** (Mechanical Engineering), **Hong, Dan Dolan** (Center of Excellence for Advanced Manufacturing and Production), **Umesh Korde** (Mechanical Engineering), **Michael Langerman** (Mechanical Engineering), **Puszynski, Keith Whites** (Electrical and Computer Engineering), **Michael Batchelder** (Electrical and Computer Engineering), **Charles Tolle** (Electrical and Computer Engineering), **Elaine Linde** (Electrical and Computer Engineering), **John Weiss** (Math and Computer Science), **Jeffery McGough** (Math and Computer Science), **Randy Hoover** (Electrical and Computer Engineering), **Rajesh Shende** (Chemical and Biological Engineering), **Jacek Swiatkiewicz** (Chemical and Biological Engineering), and **Anthony Amert** (Electrical and Computer Engineering) received an additional \$3,039,600 from the U.S. Department of Defense—U.S. Army Research Laboratory for their project entitled "Advanced Materials and Processes for Future Combat Systems."

Robb Winter and **Duane Abata** (Center for Bioenergy Research and Development (CBERD)) received an additional \$99,000 from the National Science Foundation for their project entitled "I/UCRC Center for Bioenergy Research and Development."

Winter also received \$50,000 from the Center for Bioenergy Research and Development-University Cooperative Research Center Memberships for his project entitled "Investigation of Lignocellulose Derived Lignin Coproduct as a Matrix and/or Reinforcement for Biocomposites."

Winter and **Abata** received an additional \$180,595 from the National Science Foundation for their project entitled "I/UCRC Center for Bioenergy Research and Development."

Ziliang Zong and **Manuel Penalzo** (Mathematics and Computer Science Engineering) received an additional \$16,000 from the National Science Foundation for their project entitled "CSR: Small: Collaborative Research: FastStor: Data-Mining-Based Multilayer Prefetching for Hybrid Storage Systems."

Dr. Dimitris Anagnostou (assistant professor, Electrical and Computer Engineering) was issued a patent in October 2010 after going through one year of corrections and changes. The patent holders include: D. E. Anagnostou, G. Zheng, J. Papapolymerou, and C. Christodoulou. The patent issued is: U.S. Patent: #7589674, USPTO, "RF-MEMS Reconfigurable Self-Similar Antenna," Sept. 15, 2009.

Anagnostou also gave a presentation at the AFRL Reconfigurable Systems DCT Workshop held at the COSMIAC facility in Albuquerque, New Mexico, from November 8-10, 2010. His presentation was entitled, "Reconfigurable Antennas and Antenna Arrays."

Anagnostou also recently had the following journal paper published: D. E. Anagnostou, A. A. Gheethan, A. Amert and K. W. Whites, "A Direct-Write Printed Antenna on Paper-Based Organic Substrate for Flexible Displays and WLAN Applications," IEEE / OSA Journal of Display Technology, Volume: 6, Issue: 11, Nov. 2010, page(s): 558 - 564.

Sookie Bang (professor, Chemical and Biological Engineering) was recently featured in a Reuters wire service article entitled "Baby boomer inventions that changed the world." Her work on bacterial cement was included as one of 25 inventions that changed the world and is included among some other very impressive inventions including DNA fingerprinting, the Apple II computer, and the World Wide Web. Bang had been previously recognized for this bacterial cement research from MIT where she was selected as "the inventor of the week."

Bang has successfully researched the use of bacteria in sealants to fix cracks in concrete caused by weathering and freezing water. Commonly used sealants, such as epoxies and resins, are temporary and often environmentally unfriendly. Bang's research has found a way to speed up a naturally occurring process in which bacteria extract nitrogen from urea which produces carbon dioxide and ammonia as byproducts. The carbon dioxide and ammonia then react with other ingredients — water and calcium — to form calcium carbonate, which is better known as limestone. The patch created by the bacterial process seals the crack from the inside out and integrates with the porous concrete making the repair more effective.

"This work is based on a notion that a natural environmental process can be applied for the improvement and betterment of human lives," Bang says. "I am deeply humbled and honored by this recognition."

Dr. Lew P. Christopher (director, Center for Bioprocessing Research and Development/associate professor, Chemical and Biological Engineering) has been appointed associate editor of *BioEnergy Research*, a peer-reviewed international journal published by Springer.

The journal fills a void in the rapidly growing area of feedstock biology research related to biomass, bio-fuels, and bioenergy and publishes a wide range of articles, including peer-reviewed scientific research, reviews, perspectives and commentary, industry news, and government policy updates.

Christopher is currently editing a special issue for *BioEnergy Research* entitled "Biomass Bioprocessing," based on selected presentations from the 2010 AIChE Annual Meeting in Salt Lake City from November 7-12, 2010. Christopher actively participated in this meeting by co-chairing one of the energy-related sessions and co-authoring two oral presentations and five poster presentations.

Dr. Arden Davis (Mickelson Professor, Geology and Geological Engineering), **Dr. David Dixon** (professor, Chemical and Biological Engineering), and **Dr. Cathleen Webb** (formerly with the Chemistry Department) recently received U.S. Patent #7790653 for "Method and composition to reduce the amounts of arsenic in water." Davis, Dixon, and Webb also have a provisional patent application for "Method and composition to reduce the amounts of heavy metal in water."

Dr. Keith W. Whites (professor/Steven P. Miller Chair, Electrical and Computer Engineering) presented the following poster: R. Shankar, A. Amert, J. J. Kellar, and K. W. Whites, "Development of silver nanoparticle based conductive inks for printed solar cell collector network applications," at the *Flexible Electronics and Displays Conference*, Phoenix, AZ, February 7-10, 2011.

Austin Wentz (computer science sophomore, Summerset, South Dakota) earned honorable mention in the IBM's Master Mainframe Competition. The contest ran through the fall semester and attracted over 3,500 students from over 400 schools in the U.S. and Canada. The contest is broken up into stages with the first stage learning about navigating a mainframe system then programming on a mainframe system followed by the final phase of the competition where students work to solve real-world problems posed by the experts at IBM. Out of the thousands who enter only the top 35 earned honorable mention or above. To learn more about the competition visit the contest website at <http://www.ibm.com/developerworks/university/students/contests/mainframe/winners.html>

Hardrocker Football Ranked 20 in Post-Season Poll



In its final season of NAIA affiliation, the South Dakota School of Mines football team left the league with the number 20 spot in the NAIA Coaches' Top 25 post-season poll. The Hardrockers finished the year with a 7-3 overall record and 6-2 mark in the Dakota Athletic Conference (DAC) along with a second-place finish in the DAC.

The Hardrockers were ranked in the poll for a majority of the season, earning their highest twelfth-place ranking in mid-October. The School of Mines faced a number of ranked teams during the 2010 campaign, earning victories over 23rd ranked Montana State and 24th ranked Black Hills State. The Hardrockers also faced the Dickinson State Blue Hawks, rated 13th at the time. The Blue Hawks narrowly won the meeting and went on to the NAIA post-season finishing with the number 10 ranking in the final 2010 poll.

Hardrockers Make the Grade

The School of Mines Athletics Department proudly announced that its student-athletes carried an overall 3.063 grade point average (GPA) for the fall semester, higher than the overall 2.867 GPA for the student body as a whole.

The specifics include 58 percent of student-athletes receiving a minimum 3.0 GPA, 45 percent achieving a minimum 3.25 GPA, 33 percent earning a minimum 3.50 GPA, and 14 student-athletes earning a perfect 4.00 GPA for the fall semester. In addition, the university's 166 student-athletes carried an average academic course load of 15.35 credit hours each.

"Obviously the entire athletic staff is very proud of the academic accomplishments of the Hardrocker student-athletes," said Dick Kaiser, athletics director. "The overall success within the difficult academic subject matter

Padden Chin Family Scholarship Created

Lorraine K. Padden (EE 83) and Robert W. Chin recently established the Padden Chin Family Scholarship at the School of Mines. This non-endowed scholarship will be awarded to an electrical engineering or computer engineering student with first preference to a member of the women's varsity volleyball team, second preference to a member of the women's varsity basketball team, and third preference to a student varsity athlete from Harding County, South Dakota, or Carter County, Montana.

The scholarship was established in appreciation of the education received, athletic memories and life-lessons learned, and lifetime friendships made at the School of Mines.

Lorraine K. Padden, P.E., graduated from the School of Mines in 1983 with a bachelor's degree in electrical engineering. While attending school as an undergraduate, she received departmental scholarships each year. Lorraine was a Triangle Little Sister (predecessor of Alpha Omega Epsilon), member of the Society of Women Engineers and Pi Mu Epsilon, and treasurer of the Institute of Electrical and Electronic Engineers (IEEE). She coordinated the painting of the IEEE centennial mural in the Electrical Engineering Building student lounge and received the William A. Hixon Electrical Engineering Departmental Award her senior year. She was also a member of the Hardrock Volleyball Team.

Following graduation, Lorraine joined Shell Oil Company in Houston. In 1992, she founded an electrical engineering consulting firm specializing in power systems, Padden Engineering, LLC. She is a member of numerous industry societies and continues active participation in IEEE, where she chairs standards for motors and motor protection and has received the IEEE Petroleum

at a science and engineering institution like South Dakota Mines clearly emphasizes the quality of our players and their efforts during their various playing seasons."

"We have great young men and women who are proving their leadership skills not only within their chosen sport but more importantly for their professional futures," Kaiser added.

High academic achievement has remained a priority for the School of Mines Athletics Department and for the institution. The Hardrockers have earned the Dakota Athletic Conference Scholar-Athletic award for the past six consecutive years and will continue to raise the bar as the School of Mines transitions to the NCAA Div. II level.

Malone Engineering Raises Funds for Injured Hardrocker



Malone Engineering raised over \$10,000 at the Mandy Willmore Benefit at a pair of South Dakota School of Mines men's and women's basketball games against Dickinson State and Minot State earlier this spring.

Malone Engineering, who sponsored the games, organized a number of different fundraising activities in hopes of helping sophomore Mandy Willmore, a member of the Lady Hardrocker basketball team, who suffered a spinal injury in Hawaii in December.

Many local businesses donated items for silent auctions, and Malone Engineering held an airplane toss and half court basketball shoot during halftime of the basketball games each night. Another local business, Pauly's Pizzeria and Sub Co., donated 40 pizzas each night, and the money raised was also added to the funds for Willmore.

T-shirts displaying "Team Mandy: Can't stop me!" were also on sale throughout the week. All proceeds were presented to Willmore and her family by Malone Engineering. Willmore spent several weeks rehabilitating from surfers myelopathy at Craig's Hospital in Denver, Colorado, and is now at home continuing her recovery.

and Chemical Industry Committee David C. Azbill Award and IEEE Standards Medallion. She has been active in the community including coaching basketball, softball, and soccer and was a certified referee for USAV volleyball.

Lorraine married Robert Chin in 1987 in Rapid City, and they currently live in Katy, Texas. They have two girls, Kristie and Erika. Kristie graduated from Cinco Ranch High School in 2007 as salutatorian in a class of over 1,000 students. She competed in varsity softball and volleyball receiving the All-Greater Houston Outstanding Female Scholar Athlete of the Year Award. She currently attends Brown University in Providence, Rhode Island, and will graduate with honors in May 2011 with a bachelor of science degree in civil engineering and a bachelor of arts degree in architecture. She is also a pitcher for the Brown Bears Varsity Softball team and received Second Team All-Ivy 2010, CoSIDA ESPN The Magazine Second Team Academic All-District 2010.

Erika graduated from Cinco Ranch High School in 2010 with highest honors and competed in varsity volleyball, winning a regional championship, winning third in state of 275 teams Class 5A, and being selected to the State All-Tournament Team of six athletes as setter. She attends Clarkson University in Potsdam, New York, and will graduate in 2014 with a bachelor's degree in chemical engineering (honors program). Erika is a presidential scholar and is on the Golden Knights Varsity Volleyball Team. She was also a certified volleyball referee for TASO and USAV.

In 2007, the family formed the Camp Crook Theater Museum, LLC in Camp Crook, South Dakota, to restore the 100-year-old building and preserve local history and artifacts.

Kochs Establish Scholarship for School of Mines Students



Michael, Mary, Kate, Kelsey, and Kevin Koch

Michael (MinE 80) and Mary Koch recently established the Michael and Mary Koch Scholarship at the School of Mines. This endowed scholarship will be awarded to a student from South Dakota, Montana, North Dakota, Wyoming, or Nebraska who is also a member of the School of Mines football team.

Michael R. D. Koch grew up in Lake Preston, South Dakota, graduating from Lake Preston High School in 1974. He enrolled at the School of Mines

in the fall of 1974 and graduated summa cum laude with a bachelor's degree in mining engineering in 1980. While at Mines, Michael was involved in many groups and activities, including the Hardrocker football team, the Delta Sigma Phi fraternity, and the Drill and Crucible Club. After graduating, Michael completed graduate work in biochemistry and went on to complete his M.D. degree at the University of South Dakota School of Medicine in 1986.

Michael was introduced to his wife Mary, a native of Cut Bank, Montana, and a 1983 graduate of Eastern Montana College, in 1984 by close friends Jim Guthrie (MinE 79) and his wife Terrie. Michael and Mary were married in 1985 and have four children: Tiffany, Kate, Kelsey, and Kevin. Tiffany (30) is an Army officer stationed at Fort Riley, Kansas, but is currently deployed in Iraq. Kate (23) is a professional photographer and lives in Sioux Falls, South Dakota. Kelsey (21) and Kevin (19) are both students at the School of Mines. Kelsey is pursuing a chemistry degree, and Kevin is pursuing degrees in computer engineering and electrical engineering.

In 1987, Michael completed a surgical

internship at the Keesler Air Force Base Hospital in Biloxi, Mississippi. He then completed additional training in emergency medicine and flight medicine before completing active duty tours at Minot AFB, North Dakota, and Ellsworth AFB, South Dakota. Michael served his last three years of active duty as a flight surgeon with deployments to Guam, Australia, and Saudi Arabia (Desert Storm) prior to his separation from the Air Force in 1992.

Michael then returned to the University of South Dakota School of Medicine Pathology Residency Program in Sioux Falls to complete residency training in pathology. Following completion of his residency in 1995, Michael practiced with a private multi-specialty clinic in Fergus Falls, Minnesota. He then accepted a position with the MeritCare Health Care System in Fargo, North Dakota, in 1998, practicing there for four and a half years including two years as the executive partner for pathology.

Michael accepted his current position with LCM Pathologists, P.C. and the University of South Dakota Sanford School of Medicine in 2002. He is currently the chair of the Department of Pathology and the course director for the second-year pathology course.

Longcor Scholarship to Benefit Electrical Engineering Students

Dr. Clarence "Tex" (EE 64/MS EE 70/PhD EE 71) and Theresa Longcor have recently established the "Tex" and Theresa Longcor Scholarship at the School of Mines. This non-endowed scholarship will be awarded to an electrical engineering student with first preference being given to a student graduating from Bison High School in Bison, South Dakota.

Tex grew up on a ranch in the southwest corner of Todd County and graduated high school from St. Mary's Academy, O'Neill, Nebraska, where he was the Senior Class President and a member of the National Honor Society. As a School of Mines undergraduate, he was involved with skiing, hunting, IEEE, ROTC, Sigma Xi, and Delta Sigma Phi. He also worked at South Dakota Steel and Supply.

After graduating in 1964, Tex continued working for South Dakota Steel and Supply in Rapid City until he entered the Army as a newly commissioned 2LT in the Ordnance Corp. That started a twenty-year military career where he worked a number of command and staff assignments that included Aberdeen Proving Ground, Vietnam, the U.S. Military Academy, Korea, Redstone Arsenal, Maxwell AFB, Norton AFB, and the Pentagon for which he holds the Parachute Badge, Meritorious Service Medal, and Legion of Merit.

At the quarter-way mark, the Army special schools program nominated Tex to pursue his

advanced degree. He selected the School of Mines once again and received his master's and doctoral degrees in two, intense, back-to-back years becoming the first Ph.D. from the university.

Thanks to Dr. Harvey Frazier, he was then recommended for a teaching position as an associate professor in the Electrical Engineering Department at West Point's U.S. Military Academy. He was honored by being named by them as an Outstanding Young Man of America in 1972.

Twelve years later, after retiring from the Army with a number of successful research and program management assignments behind him, Tex entered a second career in the aerospace private sector. He held a number of challenging technical and managerial roles for Hughes Aircraft Company, Santa Barbara Research Center, RG Hanson and Associates, Loral Space Systems, and now Camber Corporation where he is a senior technical fellow specializing in electro-optics and infrared systems.

A graduate of Bison High School, Theresa Deibert met Tex at a Hardrocker dance in the Old Gym while she was a student at the St. John's McNamara School of Nursing in Rapid City. They married in 1962 and have four daughters: Terri Reidy, Sharon Diocson, Stacy McClure, and Megan Longcor. They also have a granddaughter, Angelica Reidy, and a grandson, Ryan Barry.

Tex and Theresa currently reside in Huntsville, Alabama. Theresa retired from nursing in 2008 and



Theresa and Tex Longcor

is active in the Huntsville Newcomers' Club, bridge, bowling, and a local gourmet group. She is also president of their small business, the Longcor Land Company, LLC. Tex is active in genealogy, Huntsville Newcomers', the Space and Missile Defense Working Group, and the Army Aviation Association of America. Tex's business trips take him to Germany, France, Scotland, and Israel as well as Washington, D.C., San Diego, San Francisco, Phoenix, Dallas, and Orlando, and whenever possible, Theresa accompanies him. On August 18, 2012, Tex and Theresa will celebrate their fifty-year marriage with family and friends at their Black Hills log cabin near Rochford.

James E. Martin Award for Excellence in Paleontology



Jim Martin

Dr. James Martin (Geol 71/MS Paleo 72) recently established the James E. Martin Award for Excellence in Paleontology Endowment at the School of Mines.

Martin established this fund to grant a yearly award to a graduating senior who demonstrates desire and ability to pursue a career in vertebrate paleontology, who has completed the paleontology curriculum, who has been involved in museum activities, and who has demonstrated proficiency and ability in field collection and documentation.

Martin received his bachelor's degree in geology and his master's degree in paleontology from the School of Mines in 1971 and 1972, respectively. He earned his Ph.D. in geology from the University of Washington in 1979 and returned to the School of

Mines as an assistant professor of geology and director of the field station that same year.

Throughout his career, Martin has discovered, excavated, and characterized numerous fossil sites throughout North America, Antarctica, Argentina, Europe, and Australia. He also served as a consultant to the U.S. Corps of Engineers, the Bureau of Land Management, the South Dakota Geological Survey, the R.M. Rangle Corporation, Parsons Engineering, Inc., the John Day Fossil Beds National Monument, the Black Hills Natural Sciences Field Station, the Archaeological Research Center, the Wind Cave Natural History Association, Mobil Oil Company, and the Georgia Southern University Museum. He is the author or co-author of more than 180 papers and abstracts and eight geological maps.

Martin's work has brought national and international recognition to the School of Mines and the state of South Dakota. He received the International Discovery of the Year Award in 1999 from the Royal Geographical Society of London/Discovery Channel Europe and the

Department of Defense Antarctica Service Medal. He served as elected president of the South Dakota Academy of Science from 1989-1990 and as a panel member for the National Science Foundation's Biological Research Collections Program in 2004. He is the recipient of grants from the National Geographic Society, the National Science Foundation, and the Bureau of Land Management, and he also received the 2004 Distinguished Alumnus Award from the School of Mines. He was inducted into the South Dakota Hall of Fame in 2008.

The South Dakota Board of Regents has recently authorized the School of Mines to rename the Paleontology Research Laboratory the James E. Martin Paleontology Research Laboratory in honor of Dr. James Martin and his contributions to the field of paleontology, the School of Mines and its students, and the state of South Dakota. An event to formally recognize Martin and to celebrate the renaming of the building will be held in 2011.

Rodrigueses Establish Basketball Scholarship

Fernando (MinE 99) and Ruth Rodrigues recently established the Fernando Rodrigues Basketball Scholarship at the South Dakota School of Mines and Technology. This scholarship will be awarded to a member of the School of Mines men's basketball team, and it is the Rodrigues's hope that this scholarship will help anyone who stands in need.

Fernando Rodrigues grew up in Brazil and moved to Salt Lake City, Utah, when he was 16 years old. He graduated from West Jordan (Utah) High School in 1991 where he participated in basketball, soccer, and swimming. After high school, Fernando served a two-year Mormon mission in South Texas. Fernando stated that this mission changed and prepared him to be a community contributor and to help other people.

After his mission, Fernando received a scholarship to play basketball for Utah Valley University in Orem, Utah. After one year, Coach Cutler and Coach Welsh offered him a chance to move to the School of Mines where he could be more focused on academics. Fernando remembers sitting down with Coach Cutler who said that he could not offer a lot of money, but that Mines would change him forever and prepare him for

many great things to come. At the same time, Fernando had also received interest to play for Gonzaga and Missouri State, but he decided to believe in Coach Cutler and Coach Welsh and enrolled at the School of Mines where he studied mining engineering, graduating with a bachelor's degree in 1999. "That was one of the best decisions I have ever made," said Rodrigues.

After graduation, Fernando went to work for Phelps Dodge Company in Morenci, Arizona. After several years with Phelps Dodge, Fernando and his family moved to Denver in 2001 where he accepted a position with Maptek, a mining software company. During his nine years at Maptek, Fernando became the North America Technical Services Director and had the opportunity to create essential tools for the mining industry.

In 2010 Fernando accepted a position with SRK Consulting in Lakewood, Colorado, a career move to allow him to spend more time with his family. At SRK, Fernando's core function is to design and evaluate mines around the world. In 2008, Fernando decided to go back to school and work on his MBA in operations management; he expects to graduate from Regis University in April 2011.

Throughout his career, Fernando has also focused



Fernando and Ruth Rodrigues

on community service, church, scouting, and dozens of service projects. He has been a scoutmaster three times in both Arizona and Colorado. Fernando's pride and joy is his family – his wife, Ruth, and their five boys, Bryan, Spencer, Tyler, Kevin, and Cody. Fernando has always believed in an adage from Spencer W. Kimball, twelfth president of The Church of Jesus Christ of Latter-day Saints, "No success in life can compensate failure at home."

Go Hardrockers!!!!

Pearsons Establish Scholarship



Bill (CE 64) and Janet Pearson recently established the Bill and Janet Pearson Scholarship. This endowed scholarship will be awarded to School of Mines students with first preference to a student supporting a family and with financial need including students who are married, single-parent families, or students with a life partner. Second preference will be to a student with Native American heritage with financial need.

Originally from Hobart, Oklahoma, William Pearson served as a paratrooper in the 82nd Airborne Division and U.S. Army Reserves from 1956-1962 and worked as a cadastral surveyor doing survey work in Alaska during 1959, the year of Alaska's statehood.

He received a bachelor's degree in civil engineering from the School of Mines in 1964 and a master's degree in civil engineering with a specialization in public health from the University of Hawaii in 1968. He also had extensive graduate studies in public health and engineering from the University of Colorado, The Johns Hopkins University, and the University of Minnesota.

Pearson joined the United States Public Health Service (USPHS) Commissioned Corps in 1964 and was assigned for duty at the Pine Ridge and Rosebud Indian Reservations in South Dakota. He then served in a variety of progressively more responsible USPHS engineering, environmental health, and management career development positions around the United States. In 1976 he became director of environmental health for Indian Health Service (IHS) at the USPHS headquarters. In 1986 he became the director for environmental health and engineering at the IHS and was responsible for medical facilities and sanitation facilities design/construction with budgets in excess of \$1 billion.

In 1989, Pearson was elevated to the position of assistant surgeon general, USPHS, with the corresponding rank of rear admiral. That same year, he was also appointed as chief engineer, USPHS. Prior to retiring as a two-star rear admiral in 1994, he also served as acting director of IHS Headquarters Operations and acting associate director of administration and operations with broad agency responsibilities.

In addition to his work for American Indians, Alaska Natives, and other governmental/private organizations, Admiral Pearson was active in global health through special assignments in Southeast Asia, Borneo, and the Pacific where his knowledge of cross-cultural health and engineering practices and use of indigenous resources permitted him to introduce significant improvements in public health practices in those areas. Since his retirement from USPHS in 1994, he has become the founder, president, and chief executive officer of Natural Healing USA, Inc. and Annapolis Street Associates, LLC, and the chief operating officer of Katherine Properties, Inc. LLC.

Neffs Create Athletic Scholarship



Grant (ME 05) and Tara Neff recently established the Grant and Tara Neff Athletic Scholarship at the School of Mines. This non-endowed scholarship will be awarded to a sophomore student-athlete who is studying engineering, participating in football, and who hails from North Dakota, South Dakota, or Wyoming.

Grant and Tara grew up in Belle Fourche, South Dakota, and went to college in the Black Hills (Grant to the School of Mines and Tara to Black Hills State University). Grant and Tara dated during college and married

thereafter. Grant played slot receiver, some defensive back, and was the back-up kicker on the Hardrock football team, and he was also active in Delta Sigma Phi fraternity.

Grant and Tara Neff left South Dakota and have begun traveling the world working for an offshore drilling contractor. They are currently living in Perth, Australia, following an assignment in Cairo, Egypt, and the Neffs welcomed their first son, Breken, to the family in 2010.

"Being a student-athlete at the School of Mines was one of the most challenging and rewarding experiences of my life," said Grant. "I made amazing friends and together we had a lot of great times, we experienced heartache (losing some close games), and we made innumerable memories."

Olsons Establish Scholarship to Honor Sons

Lee and Judy Olson recently established the Mitch and Eric Olson Scholarship at the School of Mines. This non-endowed scholarship will be awarded to an engineering major at the School of Mines who is a member of the varsity men's football team.

Lee and Judy Olson live in St. Cloud, Minnesota. Lee taught business and Judy taught math in Foley, Minnesota, and they are both retired. They have three sons, Mitchell (CEng 05), Eric (Chem 07), and John. Mitch attended the School of Mines, majoring in computer engineering and graduating in 2005. He was also a member of the Hardrock football team. He is married to Stacie (Vedvei) Olson (IS 05) who also studied at the School of Mines and currently works for SymCom in Rapid City. Eric (Chem 07) also attended the School of Mines, earning a bachelor's degree in chemistry in 2007. He also played football until he was injured. He is currently working on a Ph.D. in chemistry at the University of Minnesota. John graduated from Dakota Wesleyan University and is currently working on an optometry degree at the University of Missouri, St. Louis.

"We are very thankful for the education that Mitchell and Eric received at the South Dakota School of Mines and Technology and also for the wonderful people that helped them while there," stated the Olsons.



Mitch, John, and Eric Olson

Hansen Establishes Scholarship



Judd Hansen (ME 78) recently established the Judd Hansen Athletic Scholarship at the South Dakota School of Mines and Technology. This non-endowed scholarship will be given to a student-athlete participating in any sport at the School of Mines.

Hansen earned his bachelor's degree in mechanical engineering from the School of Mines in

Judd Hansen

1978. After graduation, he moved to New Orleans where he worked for Shell Oil. After five years, Judd left Shell and moved to Houston, Texas, where he has witnessed numerous ups and downs in the oilfield. "The oilfield has been a great career, and I wouldn't change a thing," said Hansen.

Hansen is currently retired and living in Houston. "SDSM&T gave me a great foundation to pursue my career goals," he said. "It is a great institution with a fantastic faculty."

Hoffmans Establish Football Scholarship

Jeff (ME 84) and Kathy Liebelt (CSc 84) Hoffman recently established the Jeff Hoffman Football Scholarship at the School of Mines. This non-endowed scholarship will be awarded to a member of the School of Mines football team.

Jeff Hoffman grew up on a farm near Long Lake, South Dakota, and graduated from Leola High School in 1980. He then enrolled at the School of Mines where he studied mechanical engineering. Jeff was involved in many groups and activities while on campus including Delta Sigma Phi fraternity and the Hardrock football team. Jeff was a four-year starter for the Hardrockers and was part of the SDIC conference championship teams of 1980, 1981, and 1982.

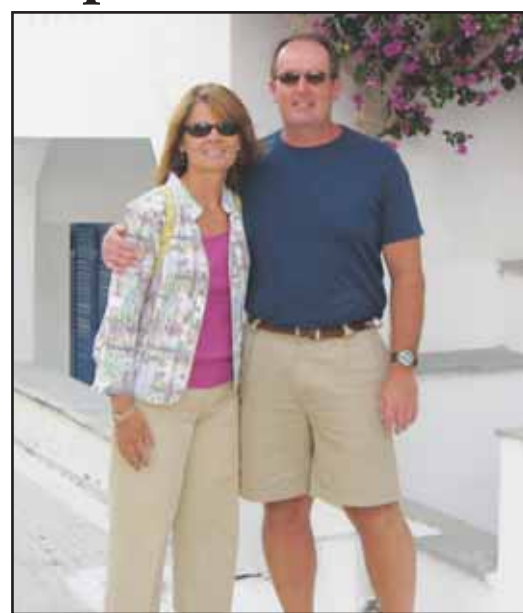
After graduation Jeff went to work for Fisher Controls in Marshalltown, Iowa, as an applications engineer and was promoted to application engineering manager-regulators in 1987. In 1990, Jeff decided to leave the corporate environment and take a position as an account manager for the Fisher sales office in Overland Park, Kansas.

Kathy Liebelt-Hoffman grew up in McLaughlin, South Dakota, and graduated from high school in 1980. She attended Black Hills State College from 1980-1981 and then transferred to the School of Mines her sophomore year. While attending the School of Mines, she worked in the Financial Aid Office, Lighting Maintenance Company, and was a Delta Sigma Phi Little Sister (now Alpha Delta Pi).

Kathy moved to St. Paul, Minnesota, following graduation and worked for Blue Cross/Blue Shield of Minnesota in their IT Department. Jeff persuaded her to

move to Marshalltown in 1986, and they were married in 1988. She worked for Fisher Controls in the SCADA division developing code for natural gas control systems from 1986-1990. After moving to Overland Park, Kathy starting working in the ERP market and is currently a partner in eNSYNC Solutions, Inc. in charge of business development.

Jeff and Kathy have three children, Matt (age 17), Brit (age 14), and Ben (age 14). All three children have been active in sports giving both Jeff and Kathy the opportunity to coach them through eighth grade and now to enjoy watching them at high school sporting events. Matt is currently a senior and is planning on pursuing a mechanical engineering degree next year.



Kathy Liebelt-Hoffman and Jeff Hoffman

Wikas Create Track and Field Scholarship



Darwin (ChemE 63) and Kathleen Wika recently established the Darwin and Kay Wika Athletic Scholarship fund at the School of Mines. This non-endowed scholarship will be awarded to a member of the men's track and field team.

Darwin G. Wika grew up in Clark, South Dakota, and graduated from Clark High School in 1959. During his senior year, he planned to attend South Dakota State University where his older brothers had gone and where he

had gotten an academic scholarship. However, his high school principal, Ms. Florence Winnings, encouraged him to go to the School of Mines. Following that advice, Darwin decided to study chemical engineering, and he earned his bachelor's degree in 1963.

He was involved in many extracurricular activities including the Student Board of Control, varsity track, intramural sports, and Delta Sigma Phi fraternity. Darwin married Kathleen, his high school sweetheart, and after graduation moved to

Victoria, Texas, to start work with the DuPont Company.

DuPont took the Wikas to several states and foreign countries including time spent in Singapore where Darwin was involved in the manufacturing operation of the entire Asia Pacific region. In 1994, Darwin and Kay moved from Singapore to West Chester, Pennsylvania, and in 2003, after almost 40 years of service, Darwin retired from DuPont.

Darwin and Kay have three children, Kristinn Wika Fiedler living in New Braunfels, Texas, Anthony (Tony) living in the Los Angeles, California, area, and Eric living nearby in Pennsylvania. Kristinn and Anthony both graduated from Texas A&M in engineering and both worked for a short time for DuPont before moving on to other corporations. Eric graduated from Purdue in 2005.

Throughout his career, Darwin was always involved in the community including scouting with his two sons, coaching all types of little league sports, and civic activities such as church and Chamber of Commerce. He was also involved as a director in the Louisiana Chemical Association, Louisiana Plant Managers Association, U.S. Chemical Manufacturers Association, and Texas Chemical Council. He was also on the board of The Nature Conservancy International Council, the Senior Advisory Board of the Global Environmental Management Initiative in Washington, D.C., and the Conference Board in New York City.

Darwin also served for several years on the SDSM&T Chemical Engineering Department Advisory Board.

Baruths Support Track Athletes with Scholarship

Robbie (IS 95) and Melissa (IE 95) Baruth recently established the Rob and Melissa Baruth Track Scholarship. This non-endowed scholarship will be awarded to a student athlete participating in varsity track who is in good academic standing at the School of Mines.

Rob was born and raised on a farm in Alpena, South Dakota, and graduated from Alpena High School in 1990. His parents are Roger and Tena Baruth. He first enrolled at Black Hills State University in the fall of 1990 and transferred to the School of Mines in the spring of 1992 and graduated in 1995 with an interdisciplinary sciences degree with a business management emphasis. Rob was familiar with the School of Mines as his older brother, Rick (CE 92), was a civil engineering major and a basketball player at the time. During a visit to see Rick, he met Coach Jerry Schafer. Along with his brother, Coach Schafer was a big influence in his decision to transfer. Rob was a four-year member of the track team. He was a two-time national qualifier in the discus and javelin and at one time held the School of Mines record in the discus. Rob was also a 14-time all conference performer in the then SDIC conference in the discus, javelin, and shot put.

After graduating from the School of Mines, Rob went to work for American State Bank in Wolsey, South Dakota, as an agricultural loan officer and crop insurance agent. In 1997 he was promoted to branch president of the American State Bank in Alpena. Rob currently works at Hegg Insurance in Woonsocket, South Dakota, as an insurance agent. He also is the head coach for the girls' basketball team in Woonsocket and enjoys farming with his father and brother.

Melissa (West) Baruth was born and raised in Huron, South Dakota, graduating from Huron High School in 1991. Her parents are Ron and Kathy West. She

enrolled at the School of Mines in the fall of 1991 and graduated in 1995 with an industrial engineering degree. Melissa was a member of Alpha Delta Pi Sorority and various other campus organizations. After graduation, she went to work for Northwestern Energy of Huron and has been there for 16 years.

Melissa and Rob live on the farm at Alpena and have four children who keep them very busy. Jaycee is 4-1/2 years old, and McKenzie, Addyson, and Samuel are 3 years old.

"We truly loved our experience at SDSM&T. It felt just like home," said the Baruths. "We try to make it back to campus once a year to see all the updates and improvements."

"We are glad to become part of the **Building the Dream** capital campaign, and we hope that this scholarship helps give a young student-athlete a better education," they concluded.



Melissa and Rob Baruth with their children, Jaycee, McKenzie, Addyson, and Samuel.

Knapps Establish Fund for Basketball

Derek (CE 94) and Annette Knapp recently established the Derek and Annette Knapp Athletic Scholarship to support the Hardrock Club. This non-endowed scholarship will be awarded to a member of the men's varsity basketball team.

Derek Knapp grew up in Rapid City and graduated from Rapid City Central High School in 1989. His respect for the School of Mines' academic programs as well as the influence by then head men's basketball coach, Hugh Welsh, made his choice to attend the School of Mines in the fall of 1989 an easy one.

After graduation in 1994, Derek attended graduate school at the University of Florida before accepting a consulting engineering position with Montgomery Watson

in Minneapolis in late 1995. A career change beginning in 2002 led him to a series of aviation jobs and finally a pilot position with Southwest Airlines.

Derek was inducted into the Christensen Hall of Fame for basketball in 2008. "It is by far the highlight of my athletic career to be inducted into the Christensen Hall of Fame and is truly an honor," said Knapp. "Any success I had at Tech was directly the result of outstanding teammates and coaches, most importantly Coach Hugh Welsh. We had some great years."

Derek and Annette have been married nearly 17 years and have two children, Emerson and Evan. They currently live in Aurora, Colorado.



Derek and Annette Knapp with their children, Emerson and Evan.

Amber DeWeerd Scholar-Athlete Award

The Amber DeWeerd Scholar-Athlete Award was established by Dr. Richard and Paulette Nankivel. This non-endowed scholarship was created to help student-athletes who are members of the Lady Hardrocker Basketball team and outstanding students as well. Richard and Paulette created this scholarship in honor of Amber DeWeerd (Chem 08) in gratitude for the great experiences and educational foundation that she was able to obtain at the School of Mines.

Amber grew up on a farm outside Rock Valley, Iowa, and attended a smaller school where she was involved in many activities including basketball. Being part of the three-time state champion basketball team brought her great pride and a drive to continue playing basketball through college. When Amber visited the Black Hills area, met with School of Mines students and coaches, and saw the exceptional education she could receive, she decided to attend the School of Mines.

Amber excelled both on and off the court at the School of Mines due to the

excellent support system that the school was able to provide, especially with the meaningful "Rocker Parents Program." Amber said, "Tech was a great experience and really prepared me for life with a great education, athletic career, and irreplaceable friends and family."

Amber is currently continuing her education at the University of Iowa College of Dentistry, and she will graduate in 2012 with a Doctor of Dental Surgery degree. "I definitely feel that Tech gave me the tools I needed to succeed, and I know that this scholarship can give many other girls the same great experience along with a great education and athletic career," added DeWeerd. "Once a Hardrocker, always a Hardrocker!"



Amber DeWeerd



Paulette and Richard Nankivel

David & Cori (Leis) Burnett Athletic Scholarship

David (IE 05) and Cori (Leis) (IE 05) Burnett recently established the David & Cori (Leis) Burnett Athletic Scholarship at the South Dakota School of Mines & Technology. This non-endowed scholarship will be awarded to a member of the women's varsity basketball team with preference given to a student majoring in industrial engineering.

David Burnett was born and raised in Philip, South Dakota. In

high school, David was a four-year letter winner in football and basketball, and he was also involved in track. During the summers, he enjoyed playing baseball, golfing, and swimming. Outside of athletics, David was also very active in music and participated in numerous state chorus competitions and concerts. David graduated as his class salutatorian and chose to attend School of Mines because of the university's great reputation and because it allowed him to stay close to his family.

Cori Leis grew up in Rapid City and, with the support of her parents, learned the joys of playing sports. Throughout her youth, she participated in softball, volleyball, basketball, and track. She found success in athletics receiving numerous accolades including multiple varsity letters, all-conference, and all-state honors. Upon graduation from Central High School, she decided to pursue her dream of earning an engineering degree while playing college basketball at the School of Mines.

David and Cori met during their freshman year at the School of Mines and instantly found a connection through their interests in academics and athletics.

David was a part of the Hardrockers football team, both as a player and team manager. He was actively involved on campus with the Institute of Industrial Engineers (IIE), Tau Beta Pi, and residence life. He also served as the announcer for the Hardrocker basketball games and was the lead vocalist for Murphy's Law, a band formed along with other School of Mines students.

Cori was a member of the Lady Hardrocker basketball team for four years. During her career, the team won two conference championships and earned a berth to the NAIA National Tournament twice. During this time, she was also named to the All-Conference team, voted as the Rapid City College Female Athlete of the Year, and earned spots on the all-time record lists by scoring 1190 points, grabbing over 600 rebounds, and dishing out more than 200 assists. Her teammates and coaches provided countless memories and lifelong friendships. Outside of basketball, Cori was active in many organizations including IIE, Leadership Development Team, and Freshmen Orientation. To gain engineering experience, she also worked part-time at Malone Engineering, Inc.

David and Cori were married in October of 2005 and soon after received their bachelor's degrees in industrial engineering. David was selected to represent the student body as the speaker at their graduation ceremony.

After graduation, the Burnetts moved to Louisville, Kentucky, where Cori worked as an industrial engineer for Michelin and David began to pursue a graduate degree in industrial engineering from the University of Louisville. He received his master's degree in industrial engineering and is currently finishing his Ph.D.

David and Cori now reside in Greenville, South Carolina, where they both work as engineers for Michelin. They enjoy traveling, camping, hiking, playing and watching sports, and spending time with their two dogs – Murphy and Oakley.

Through this scholarship, the Burnetts hope to show their gratitude to the many people who supported them along the way – family, friends, professors, teammates, coaches, and the entire SDSM&T community.



Cori and David Burnett

Kirschenmanns Support University with Scholarship

Korey (EE 05/MS EE 07) and Rachael Kirschenmann have recently established the Korey and Rachael Kirschenmann Athletic Scholarship at the South Dakota School of Mines and Technology. This non-endowed scholarship will be awarded to a member of the Hardrocker men's basketball team with a preference to a student-athlete who is majoring in electrical engineering.

Korey Kirschenmann grew up and graduated from Rapid City Central High school in 2001 and continued his education at the School of Mines where he studied electrical engineering. Korey played on the Hardrocker basketball for four years as an undergraduate, and he recalls his most memorable moment was beating Black Hills State University in Spearfish during his junior year when he had a tip-in at the end of the game to seal

the victory. He was a member of Eta Kappa Nu and Tau Beta Pi honor societies.

After completing his undergraduate studies, he continued his education by completing his master's degree at the School of Mines under the advising of Dr. Keith W. Whites (EE 86) in the Laboratory for Applied Electromagnetics and Communications. Korey's thesis was entitled "Capabilities and Limitations of Commercially Available Materials for Fabrication of Microwave Frequency Subsystems via Inkjet Printing."

Upon earning his master's degree in 2007, Korey started his career in Boston working for CST-Computer Simulation Technology as a sales application engineer. In 2008, he married Rachael, and the two decided to move to Denver to be closer to her family. Korey accepted a job with M-E Engineers and is currently a project manager and a LEED accredited professional. He has had the opportunity to work on designing and overseeing the construction of the electrical portion of the new Florida Marlins ballpark in Miami. In preparation for Super Bowl XLV in Dallas, Korey assisted with the event power overlay at Cowboys Stadium.

Korey and Rachael currently live in Arvada, Colorado, with their St. Bernard, Samson.



Rachael and Korey Kirschenmann

Friends of Stechmann Establish Scholarship Endowment

Close friends, classmates, and family of Eric Stechmann have established the Eric L. Stechmann Scholarship to honor Eric (EE 70/MS EE 72) and Kathy (Math 69) [Kutcher] Stechmann. This endowed scholarship will be awarded annually to a junior or senior electrical or computer engineering major from South Dakota who demonstrates outstanding aptitude for electrical and computer engineering and exceptional dedication toward the mission and student body of the South Dakota School of Mines and Technology.

Eric Stechmann was born in Mitchell, South Dakota, and grew up on a ranch near Philip, South Dakota. He attended the School of Mines from 1965 to 1972. During his undergraduate studies in electrical engineering, Eric was a resident hall advisor and president of several organizations including Eta Kappa Nu, Sigma Tau, and the student chapter of IEEE. As a graduate student from 1970 to 1972, Eric taught undergraduate programming classes while conducting research into machine-independent circuit simulation software. Eric's primary mentor during his college days was Dr. Bill Reuter (EE 56/MS EE 58) who taught the first computer classes at the School of Mines in the mid-60s.

After receiving his master's degree in 1972, Eric joined Control Data Corporation in St. Paul, Minnesota, to pursue research into next-generation programming languages and computer-aided design tools. This culminated in the architecture design of a software suite for automated circuit routing and component layout software that was subsequently used in developing the company's supercomputers. After Control Data, Eric spent several years at Zycad and Provis Corporation, developing software interfaces for logic and fault simulation hardware. He also extended commercial circuit analysis software while working for Mentor Graphics in Portland, Oregon, by developing and implementing non-linear magnetic core transformer models.

In 1999, Eric shifted his engineering focus to embedded systems and joined Advanced Respiratory, Inc. There, he co-developed communication protocols and routines for remote patient monitoring systems. He also acted as lead designer for the operating system employed by The Vest, the company's primary medical product. He was awarded a U.S. patent for this control system design in 2006. Once in production, The Vest became a life-saving technology for patients suffering from serious respiratory ailments, a fact that made this work especially rewarding to him. Eric continued to develop embedded control systems over the following decade for safety equipment produced by Sensonix and Banner Engineering. This included self-checking microcontrollers used in high-risk industrial manufacturing environments.

In 2010, Eric was diagnosed with brain cancer and left Banner Engineering to spend time with his wife Kathy, their son, David, and many other friends and relatives.

Kathy and Eric met when they both were freshmen at the School of Mines in 1965, and they were married in December 1969. After graduating from the School of Mines, Kathy taught mathematics in the Rapid City and Roseville,



David, Kathy, and Eric Stechmann

Minnesota, school districts until her retirement in 2007. Eric and Kathy's son David, received his bachelor's and master's degrees in mechanical engineering from Worcester Polytechnic Institute in Worcester, Massachusetts, in 2006 and 2007 respectively. He is currently employed by Boeing Commercial Airplanes in Seattle, Washington.

During Eric's long professional career, he worked tirelessly to maintain connections with the School of Mines and its alumni. He continuously assisted the Twin Cities Chapter of the Alumni Association and served multiple terms as president, vice president, secretary, and treasurer. He provided constant financial support for development projects within the Electrical Engineering Department and throughout the university in general. He also promoted and attended every alumni reunion since 1970, including the 2010 reunion shortly after being diagnosed with brain cancer. In all of these roles, Eric was proud to work hard to improve relationships among existing alumni while bringing new alumni into the fold.

In addition to his long-time support and work with alumni, Eric represented the School of Mines at career fairs and similar events throughout the Twin Cities. He also found time to meet with high school students interested in engineering, mathematics, and science. During all of these occasions, Eric shared his passion for engineering and his belief in the positive impact that engineers could have on the world. He also articulated the School of Mines' mission, its dedication toward students, and its commitment to educational excellence. Eric always felt that the School of Mines and the relationships created while attending the university gave him the tools and support necessary to build his rewarding career. It is his hope that this scholarship can provide students of today and of future generations with similar opportunities for success.

Scholarship Created in Memory of Brauner



Edwin L. "Lee" Brauner

The Edwin Brauner Memorial Scholarship fund was established by Helen Brauner, her children, Tom and Barbara, and other family and friends in memory of Edwin L. "Lee" Brauner (EE 49/ME 50). Brauner was proud of the engineering education he received at the School of Mines, and he made life-long donations to the university. His family hopes to continue his legacy by establishing the Edwin Brauner Memorial Scholarship, a non-endowed scholarship that will be awarded to a junior or senior electrical or computer engineering major at the School of Mines.

Brauner was born September 8, 1924, in Custer, South Dakota, to Frank and Elster Brauner. He attended Custer High School, was a veteran of WWII, and earned degrees in electrical engineering and mechanical engineering from the School of Mines in 1949 and 1950 respectively.

He married Helen Messina of Schenectady, New York, on October 18,

1952. He spent his 38-year professional career with the General Electric Co. (GE) at their plants in Schenectady, Philadelphia, and, for the largest part of his career, with GE Drive Systems in Salem, Virginia. As a lead engineer, he traveled extensively both domestically and internationally for GE, overseeing installations in Japan, Italy, and Australia.

Lee was known by his colleagues as a teacher and mentor, and his singular sense of humor was a hallmark that made him a popular speaker at professional events.

Lee was also a life-long learner and avid reader. Books were always close at hand, and he owned thousands of books on wide-ranging topics that included history, biography, and philosophy. During WWII, he jettisoned k-rations from his pack so that he could make room for books.

Sadly, Lee died August 19, 2010, in Pasadena, California. This led to an outpouring of remembrances from former engineering colleagues, each of whom had a funny or poignant story to relate about his wit, his collaboration, and his engineering acumen.

Gifts in memory of Edwin Brauner can be directed to the SDSM&T Foundation.

Brysons Establish Scholarship

Dale (CE 60) and Judy Bryson recently established the Dale and Judy Bryson Environmental Engineering Scholarship. This non-endowed scholarship will be awarded to a sophomore, junior, or senior student at the School of Mines who is majoring in environmental engineering.

Dale S. Bryson grew up in Watertown, South Dakota, and graduated from high school in 1956. Wanting to be an engineer, he chose the School of Mines because of its fine reputation. Dale graduated from Mines in 1960 with a bachelor's degree in civil engineering. While in college he participated in many groups and activities including intramural sports, the student chapter of the American Society of Civil Engineers, Triangle Fraternity, and the year book staff. After graduation, he married the girl next door in Watertown, Judy. Dale and Judy have two children and two grandsons. Judy began her career as an elementary school teacher graduating from Northern State Teachers College in Aberdeen. After being a homemaker for a number of years while their children were growing up, Judy then worked as the office manager for a small CPA firm.

Dale has worked in the profession of environmental protection for over 50 years. For 34 years he worked for the U.S. Environmental Protection Agency (USEPA) or its predecessor agencies. The Brysons have lived in San Francisco, California; Ann Arbor, Michigan (where Dale earned his master's degree in civil engineering from the University of Michigan in 1964); Minneapolis, Minnesota; the Hague in the Netherlands; and Naperville, Illinois where they currently reside. Dale spent most of his career managing environmental enforcement programs controlling air, water, and toxic pollution. When he retired in 1994, he was the director of the Water Division for the Midwest Region of USEPA. In that position, he implemented and managed water pollution control, safe drinking water, wetlands protection, and other related programs for the agency in the Midwest Region with a principal focus on protecting the Great Lakes. Dale has extensive international experience in evaluating and implementing water pollution control programs. Since his retirement from USEPA, Bryson has performed independent consulting work

for various clients in the U.S. and abroad. Because of his special interest and expertise in protecting the Great Lakes, for the past 10 years Dale has been heavily involved with the Alliance for the Great Lakes, serving as chairman of its Board of Directors and in other positions. The Alliance is the largest and oldest environmental advocacy group devoted to protecting the Great Lakes. Dale has also served on the School of Mines Academic Advisory Board which he thoroughly enjoyed.



Judy and Dale Bryson

While with USEPA, Dale received many honors and awards including nine of USEPA's Gold, Silver, and Bronze honor award medals including a Gold Medal for Distinguished Career. President Clinton awarded Dale a Presidential Rank Award for Meritorious Executive Service. The School of Mines also recognized Bryson's public service career awarding him the Guy E. March Medal for Outstanding Alumni in 1991.

Dale and Judy are thoroughly enjoying retirement. They stay very active with many interests including traveling the world, biking, country western dancing, genealogy research, wood carving, and attending their grandsons' sporting events and school activities.

Dale's brother, Dean, is a professor emeritus at the School of Mines. Dean taught at Mines from 1976 until 2002 when he retired as the dean of the College of Interdisciplinary Studies.

P&H Mining Equipment Inc. Scholarship

P&H Mining Equipment Inc. recognizes that the School of Mines is one of the few remaining schools that specializes in mining engineering and one that graduates quality engineers. P&H also understands its own role in encouraging and supporting mining students through scholarships, internships, and employment opportunities after graduation.

In order to ensure the continued development of mining engineers, P&H has established the P&H Mining Equipment Inc. Scholarship for junior mining engineering and management students at the School of Mines. Recipients of this non-endowed scholarship must have a minimum 3.0 grade point average, have financial need, and be active in extracurricular campus or community activities. Recipients will also be encouraged to accept a summer internship assignment with P&H after completion of their junior year at the School of Mines.

Founded in 1884 by industrial artisans Alonzo Pawling and Henry Harnischfeger, P&H Mining Equipment Inc. is one of the world's leading suppliers of highly efficient machinery applied to supplying the global economy with vital minerals and energy sources including copper, coal, iron ore, petroleum, gold, phosphates, diamonds, and boron. Headquartered in Milwaukee, Wisconsin, P&H designs and manufactures reliable and productive electric mining shovels, walking draglines, and rotary blasthole drills for the surface mining industry worldwide.

P&H's company-owned global distribution organization, P&H MinePro Services, markets and supports over 30 leading lines of equipment and is the exclusive distributor of P&H mining equipment worldwide. P&H MinePro Services can be found at over 50 locations throughout North America, South America, Australia, Asia, Europe, and Africa.